



MAKING AND UNMAKING OF CHANDIGARH- A CITY OF TWO PLANS

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Cities and their Context

- *Cities have been part of human history.*
- *Cities- known to command power and authority*
- *Cities -- known for their dualities and contradictions.*
- *Cities- known for both -- positivity and negativities*
- *Cities -- known to be areas of concentration of population/ activities, infrastructures, services, healthcare, education*
- *Cities -- known to be Engines of economic growth-70%*
- *Cities - generators of employment , wealth and prosperity,*
- *Cities – also known for their negativities,*
- *where rich and poor rub shoulders-*
- *Cities – large consumers of resources/energy/ land*
- *Cities— consuming 60% global energy*
- *generating 70% of carbon footprints*
- *- largely responsible for global warming-*

Cities and their Context

- *Cities- remain a manmade , mechanical environment*
- *Cities- destroy natural habitat-anti-thesis to bio-diversity*
- *Cities- known to be creator of best/ worst living conditions- housing both rich and poor*
- *Cities- home to large migrants*
- *Cities- home to slums*
- *Cities- remain in crisis- natural and manmade*
- *Crisis of population, poverty, pollution*
- *Cities – ever evolving and devolving*
- *Cities – were, are and shall remain dominant in future*
- *Cities- drivers of nation's future*
- *However Cities need rationalization*
- *Made more-- bio-diverse; productive, effective, efficient, humane, livable, sustainable, Healthy place to live /work*

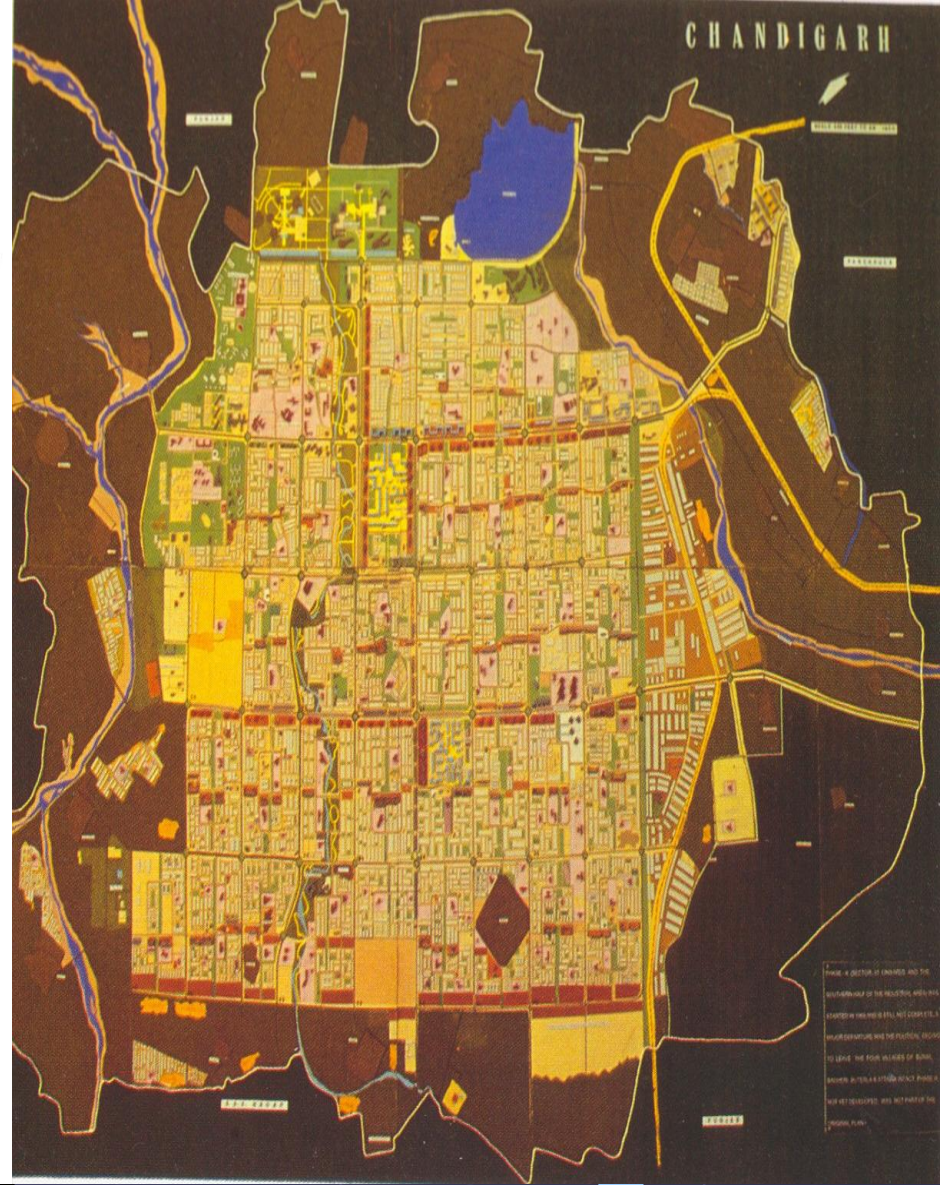
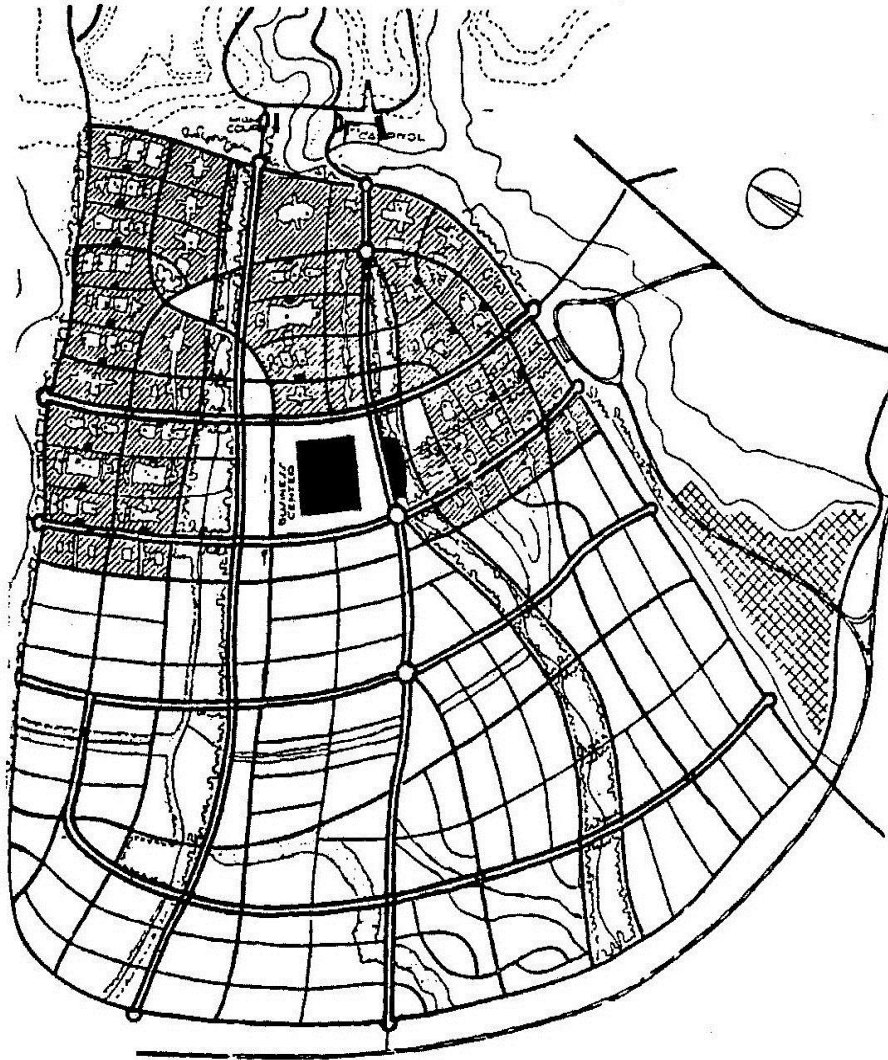
Chandigarh

- Chandigarh remains a city of crisis
- Chandigarh is not a planned city but a designed city
- Chandigarh -- known for its numerous distinctions;
- -Offering basic amenities of life to poorest of poor- dignified life
- -- selecting most appropriate site for locating capital city
- -Orderly planning, development /management
- - Efficacy of Grid Iron Pattern
- - Pure land use planning
- - Sector- as unit of neighborhood planning
- - Giving a concept of 10 minute city
- - Urban planning catering to 4 basic human functions
- - Known for planning with nature- Sun, Space and Greenery
- -Known for Rule of 7V's- 8bc- for traffic planning
- --Known for impacting cooking/living habits

Chandigarh

- -Known for development Controls- both within/outside city
- Known for peri- urban development / regional planning
- -Making landscaping integral part of city planning
- - Known for giving concept of bulk acquisition of land
- - Known for developing a planned city without a master plan
- - known for concept of free-hold/lease hold property
- - Giving a new vocabulary to architecture and planning
- - Establishing credibility of planners/ architects
- - Using principles of CIAM in Urban planning
- Proved efficacy of Bureaucratic model of urban governance
- - providing concept of re-densification of city
- - First city without statues /roads named after individuals
- - Creating an artificial lake as part of city planning.
- -First city to achieve planned population- within 4 decades

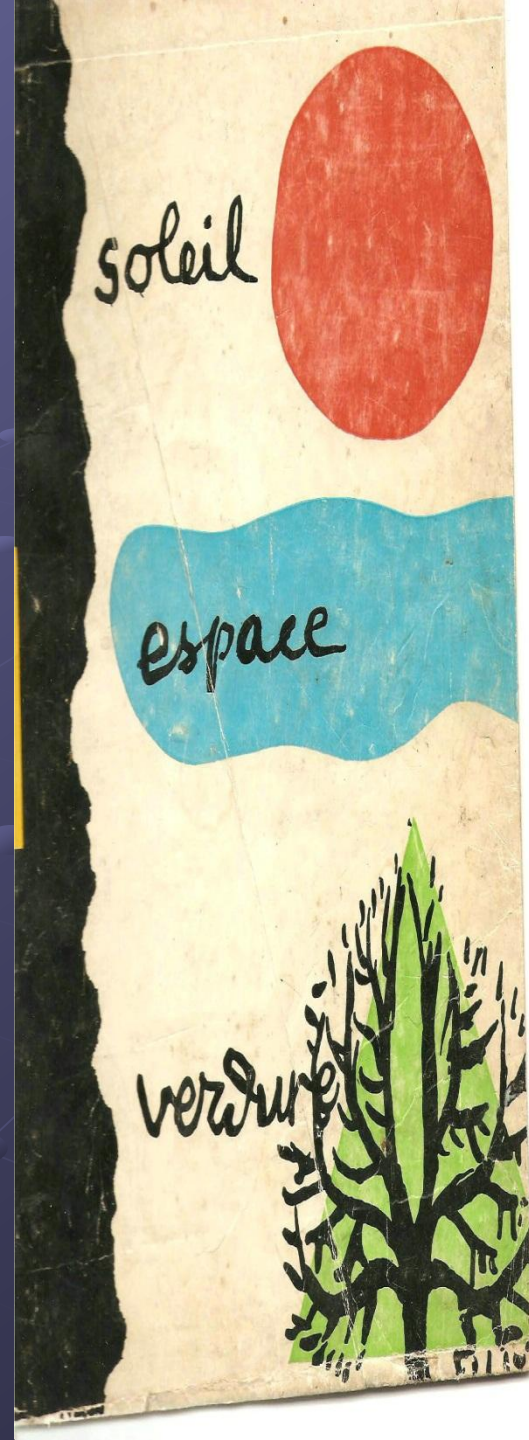
Albert Mayer's Plan for Chandigarh



Historical Perspective

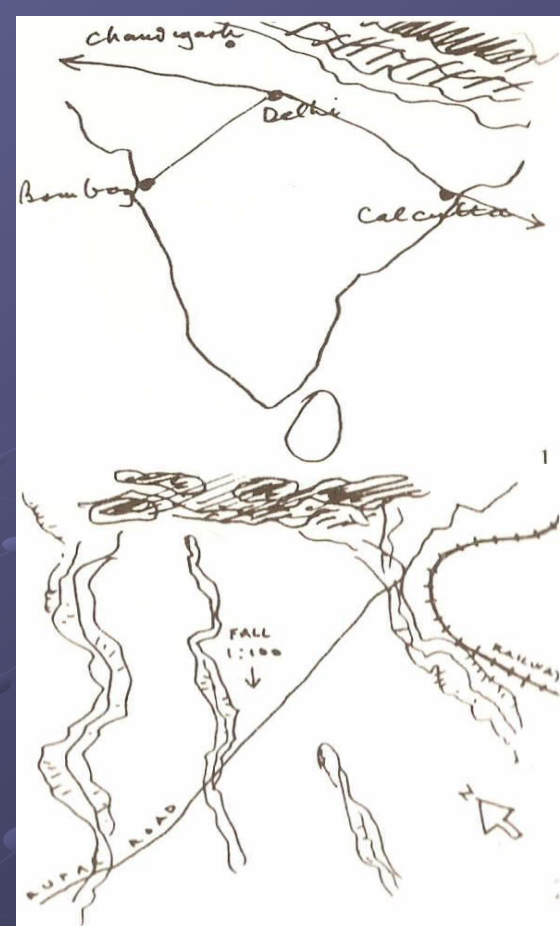
Birth of An Idea

- Lahore- capital of Punjab lost to Pakistan during Partition of India- 1947
- Building new capital for East Punjab -- a necessity
- Building a capital conceived in 1947.
- locating capital in existing towns overruled for reasons of;
- Security, Centrality, accessibility, infrastructure, Development & Ambiance of capital
- The capital city was supposed to:
 - Rehabilitate the state governance
 - Rehabilitate refugees
 - Recreate rich legacy of Lahore
 - Creating a symbol / spirit / potential of independent India
 - Establish a city with a vision of future-unfettered by traditions of the past.

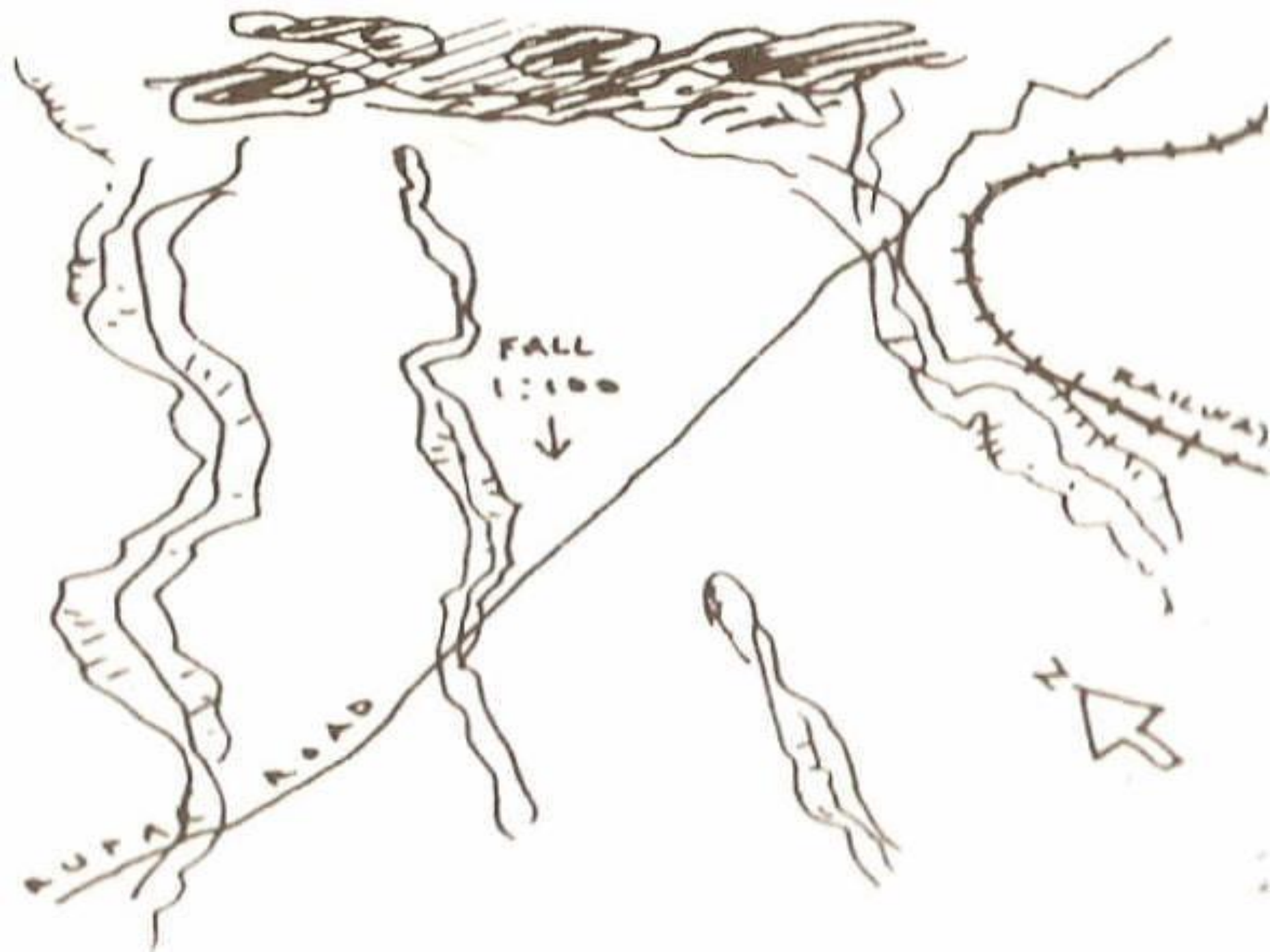


Locating Chandigarh

- For Selecting site
- -- State Government appointed a committee.
- Team zeroed on site in 1948,
- -- located in sub- mountainous region,
- - in District of Ambala
- - in the shadow of Shivalik Range of Hills
- --260 kms North of Delhi due to;
 - Centrality in state --
 - Proximity- to National Capital.
 - Accessibility- both by road/railways
 - Availability of Sufficient water.
 - Gentle gradient- for natural drainage.
 - Absence of physical encumbrances
 - mango groves/ temples marked site.



▲ Chandigarh Temple.

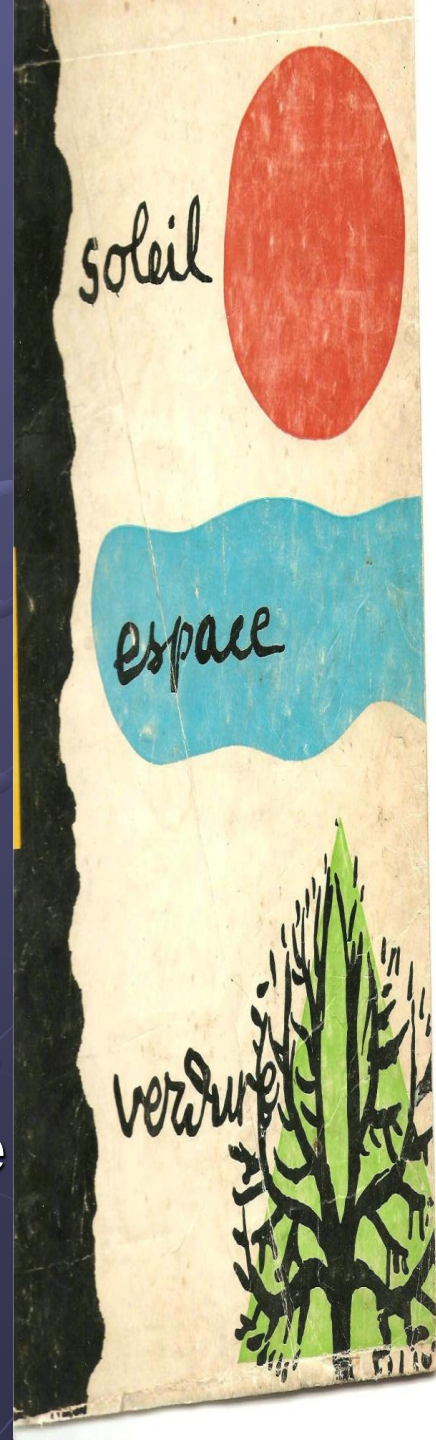




▲ Chandi Temple

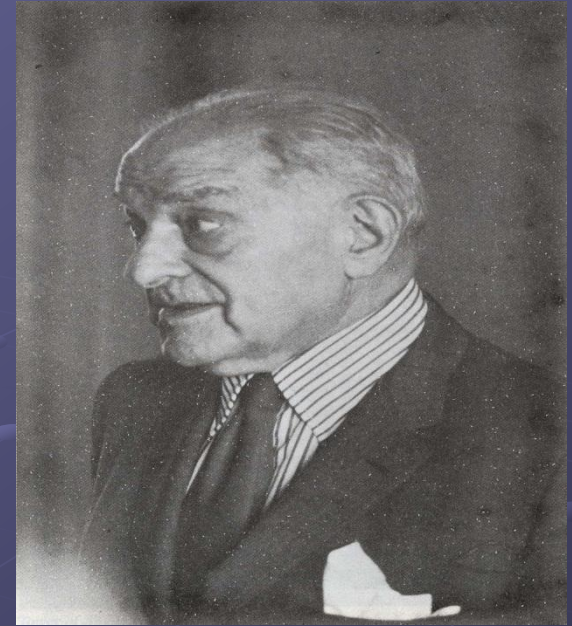
Architects Brief

- City -- planned for 0.5 million.
- Chandigarh-- to set an example in providing:
 - Quality Urban planning& Development
 - generous infrastructure both hard/soft &
 - Best of support services,
 - Chandigarh - to be first Indian city where basic services including;
 - water, sanitation
 - drainage, electricity,
 - roads, healthcare; shelter, education
 - would be available even to “poorest of the poor” to lead a dignified life
 - Vision -- a capital;-- that would serve as a role model for nation in art & science of;
 - city planning
 - architecture



Designing Chandigarh by Albert Mayer

- Near vacuum of local expertise made state to seek best of western skill to realize dream of creating a beautiful city.
- Considering
 - -- financial / other constraints and
 - -- defined goals,
 - - search was narrowed down to a good modern architect :
 - capable of developing new concept
 - suited to Indian climate,
 - using available materials and
 - Meeting functions of new capital.
- Task assigned ;
 - -- American Planner Albert Mayer
 - --& associate Mathew Nowicki



First Master Plan- Albert Mayer

THE BIRTH OF CHANDIGARH: (TEAM 1) American Architects



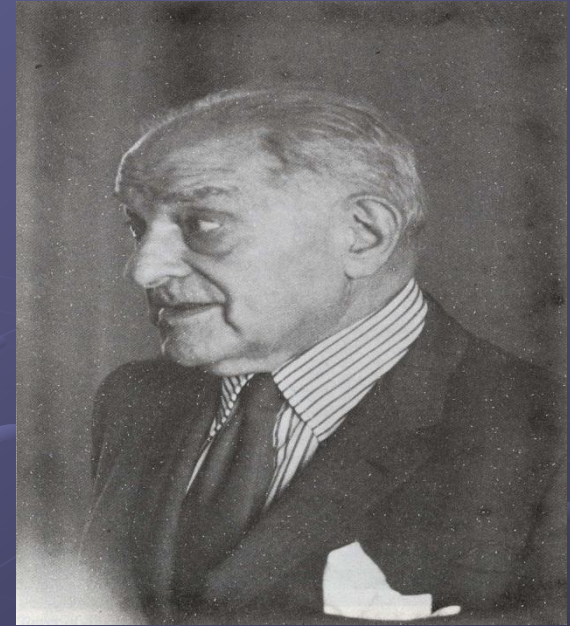
Albert Mayer and Matthew Nowicki

The flatness of the site allowed almost complete freedom in creating street layout and it is of interest to note that the overall pattern deliberately avoided a geometric grid in favour of a loosely curving system.

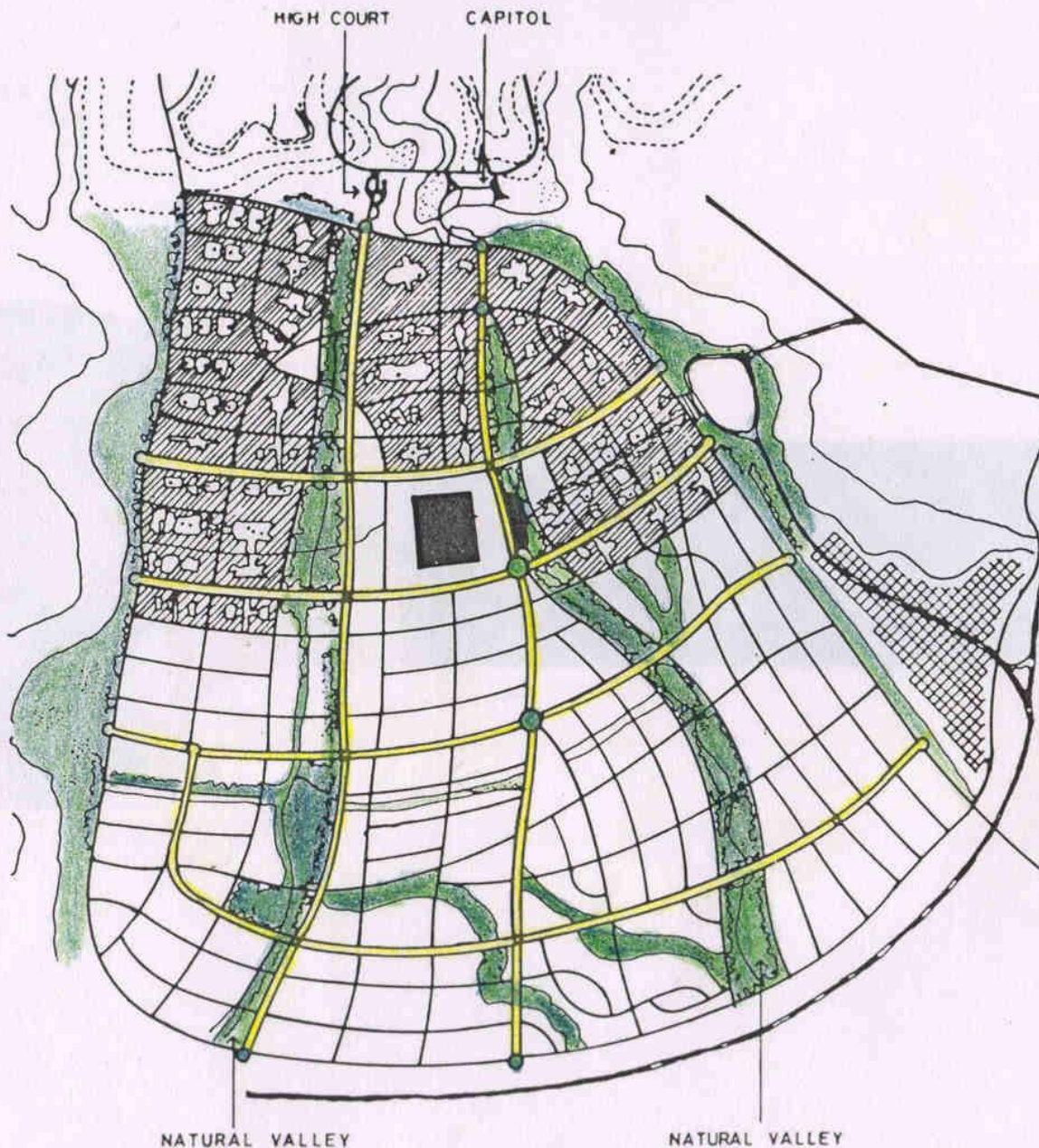


Designing Chandigarh by Albert Mayer

- Mayer defined Chandigarh in terms of:
 - Fan shaped city.
 - Curved and radial network of roads.
 - A network of parkways.
 - Super block as basic unit of residential planning
- first master plan decided
 - Placing of Four major components of city including
 - Capitol,
 - University,
 - City Center,
 - Industrial Area,
 - Capital occupying most prominent position
 - City center - center of the city
 - industrial area – South East position
 - University- - North West position
- Neighborhood unit/ Super block- used in number of American projects -Baldwin Hills (1941) by Clarence Stein.

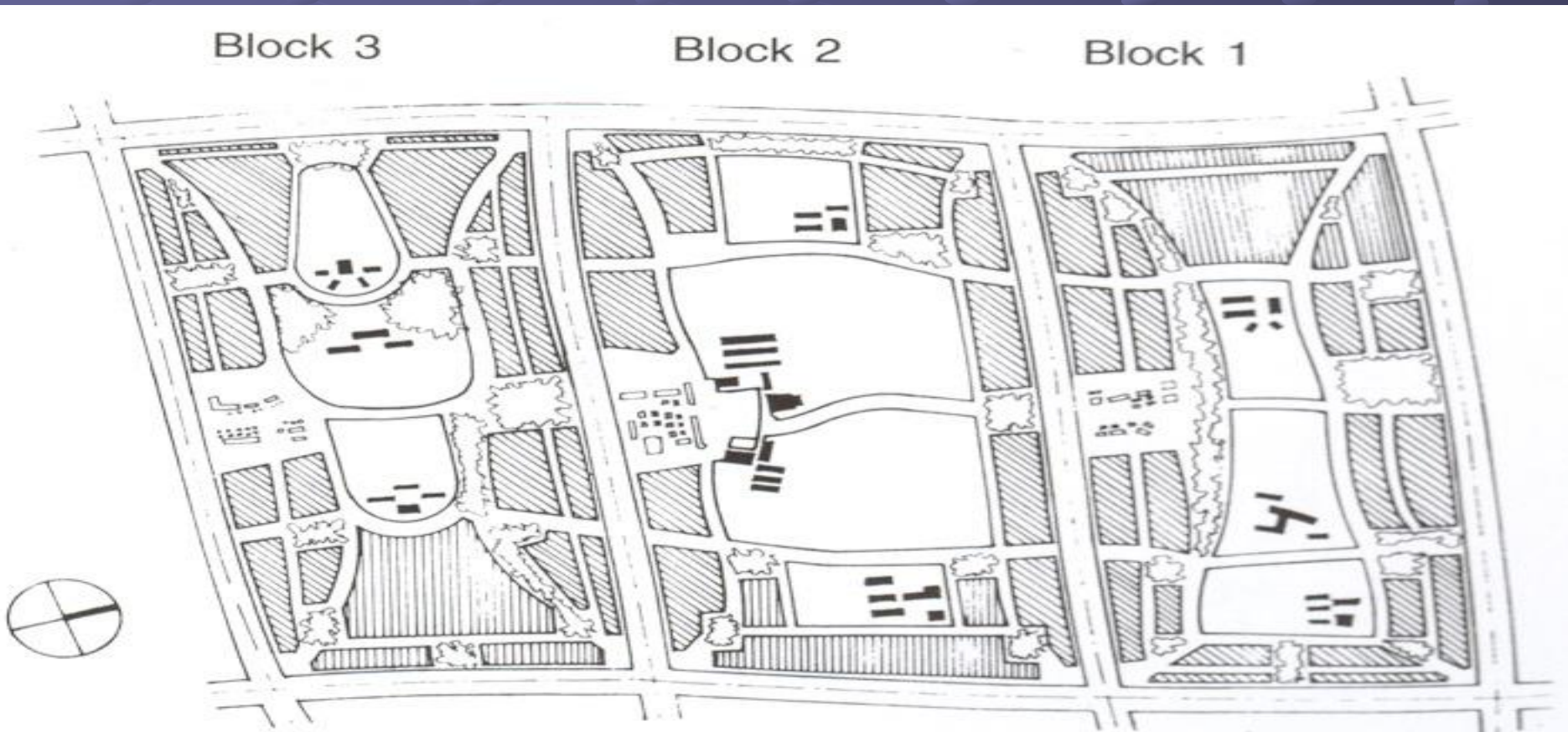


First Master Plan- Albert Mayer



ALBERT MAYER'S SUPER BLOCK

- Super block measured 500 m x 1000 m in dimension
Each super block consisted of three parts which contained housing, schools, shopping centers, others amenities.
- 3 types of housing – Low, Middle and High income groups were inter-mixed.





Team – 2-- LE CORBUSIER WITH BLUE PRINT OF MASTER PLAN OF CHANDIGARH

Re-designing Chandigarh by Le-Corbusier

- **Sudden death of Nowicki** -in air crash in August 1950- changed the destiny of Chandigarh.

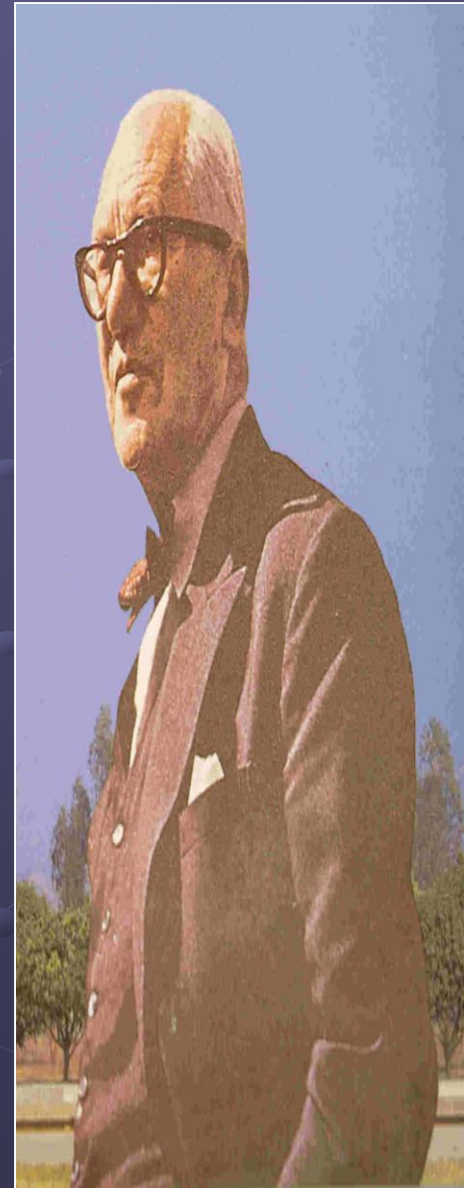
- **State Govt. approached Corbusier** for completing city.

- **Corbusier wrote in preparation** of his first meeting with Mr. Thapar & Verma:

- It is the hour that I have been waiting for:
India the humane and profound civilization.
To construct a Capital.
Urbanism is the activity of a society
A capital is the spirit of a nation
A set of tools
It is a conjunctionLe Corbusier is an optimist.
His name is not mentioned but in 20 years of urbanism. L-C is in all the projects.

- It was indeed the hour Corbu waited for 24 years of frustrated efforts/ collapsed hopes

- From debacle of the Palace of the League of Nations competition in 1927
- To his exclusion from final design United Nations Head Quarters in 1947
- With shelved Master Plans for half a dozen cities
- sudden arrival in summer of 1950 of two men from India was the climax of Le Corbusier's career.



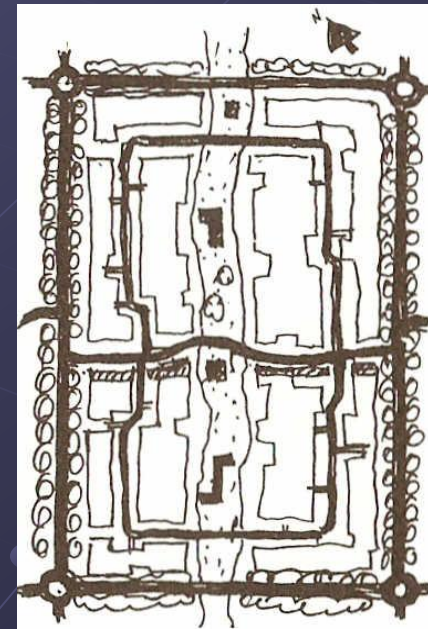
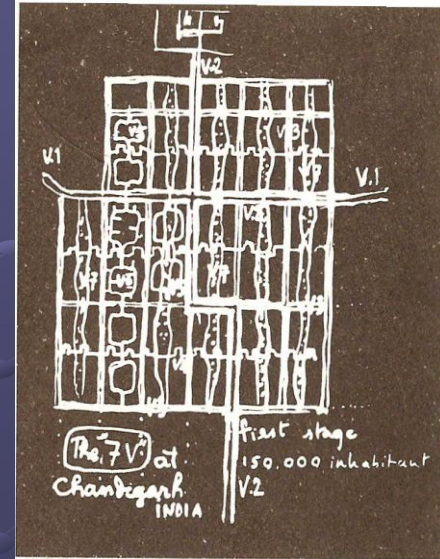
Re-planning Chandigarh by Le-Corbusier

In India Corbu was able to realize three of his continuing pre-occupations

- the city,
- the govt. complex and
- the cultural complex
- and had **Museum of Knowledge** been built in Capitol, he would have achieved his desire for fusion of the last two.

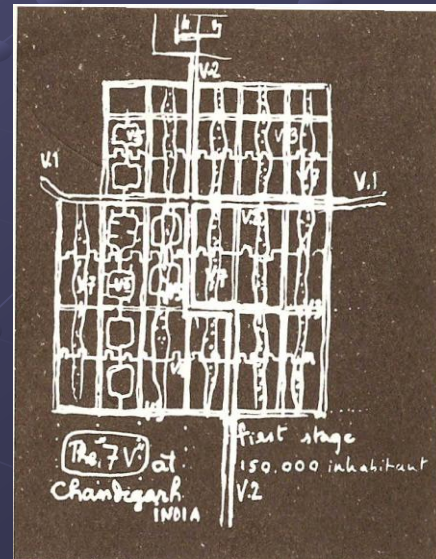
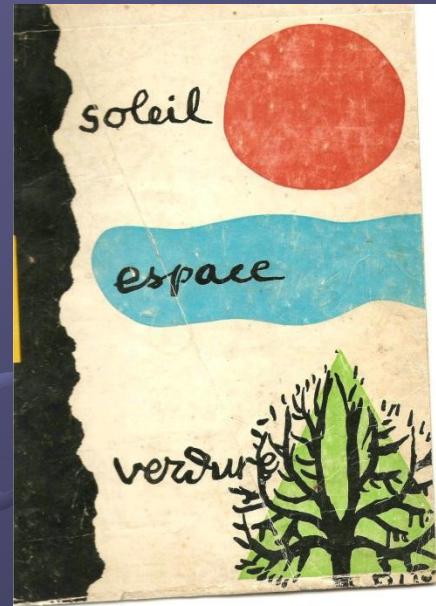
Le-Corbusier appointed Architectural Advisor (two yearly visit of one month each) with Pierre Jeanerette, Maxwell Fry and Jane B Drew as members of the team.

All four were **members of the CIAM**-The Congress Internationaux d' Architecture Moderne-the ideology which played key role in designing the new city.



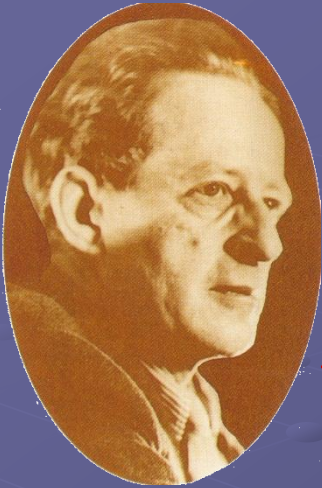
Re-planning Chandigarh by Le-Corbusier

- Agreement with second team included
 - acceptance of Mayer's Plan,
 - designing capitol complex including buildings,
 - Museum and
 - implementing master plan
- Corbusier had other ideas, told Fry and Drew:
 - We will rectify Master Plan .
 - We must make a new beginning.
- In four days in February 1951 in Chandi Mandir, he redesigned the city.
- There was just sufficient overlap between the two master plan for Mayer to sign the new one as co-author.
- The master plan of Chandigarh belongs to
 - high tradition of modern architecture
 - represented by principles of CIAM.



LE CORBUSIER'S TEAM

DRAWING AND INSCRIPTION BY LE CORBUSIER

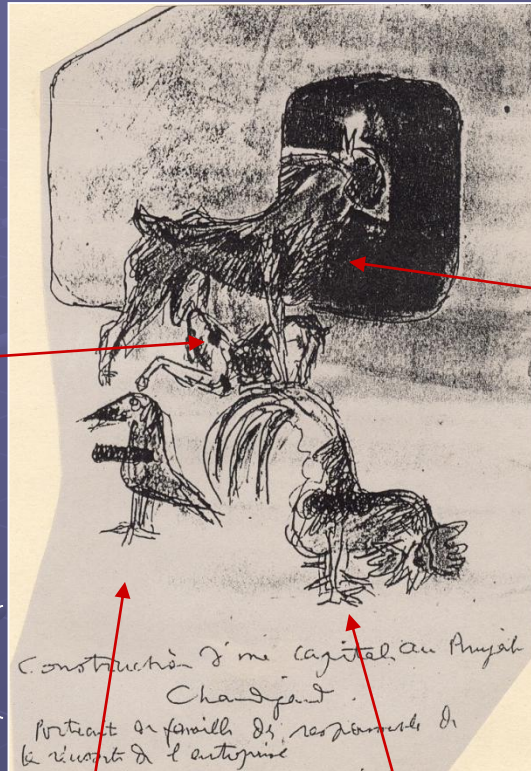


E(dwin) Maxwell Fry

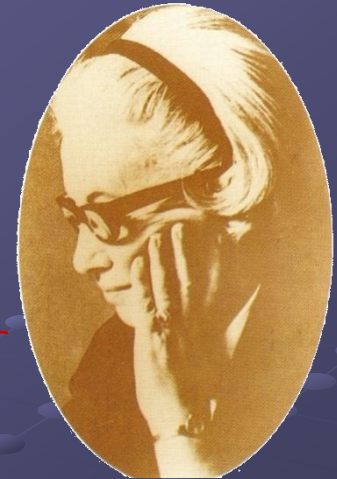
French Original

Construction d'une capitale
au Punjab Chandigarh

Portrait de famille des
responsables de la réussite
de l'entreprise.



Construction d'une capitale au Punjab
Chandigarh
Portrait de famille des responsables de
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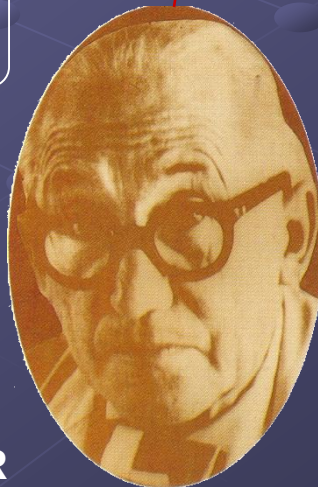


JANE B(everly) DREW

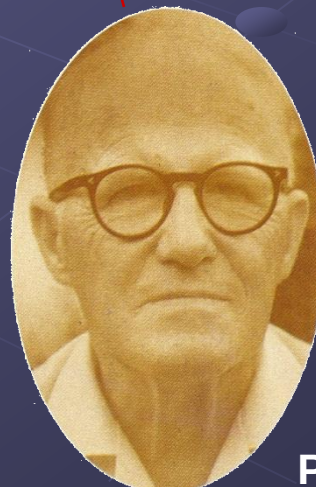
English Rendering

Construction of a capital in
Punjab-Chandigarh.

Portrait of the Family which
is responsible for the
success of this undertaking



LE CORBUSIER



PIERRE JEANNERET

LE CORBUSIER'S MASTER PLAN – DESIGN APPROACH

Critical factors impacting architecture and urban form of Chandigarh were:

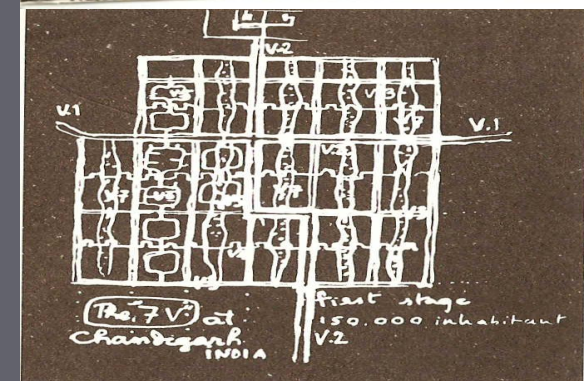
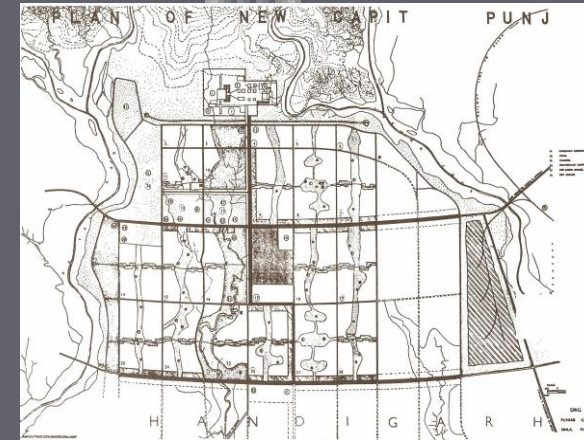
- Low budget for city (\$2.2m)
- Existence of plan prepared by Albert Mayer
- Strict adherence to budget / pre-conceived structure
- Value estimates prepared on Mayer's Plan
- Large range of social services to be provided

Which made Chandigarh

- A low density and
- A low rise city with
- Simple traffic system and
- sector layouts dictated by restricting cost of roads, service & infrastructures.

Consideration of economy also dictated.

- choice of local bricks-- chief material for construction
- boulders/pebbles from nearby rivers beds used in random patterns creating a rich variety of surface texture.



LE CORBUSIER'S – DESIGN APPROACH

Minimizing windows- sizes/glass-cost of wood work/glazing 7/ 11 times more than a brick wall.

Standardizing- doors, window, sanitary fittings, ironmongery and

Using pre-cast --roof battens to save on time / labour during construction.

using manpower --not machinery for achieving economy.

Chandigarh Architecture became product of:

➤ *Protection from sun/ dust laden winds of hot seasons*

➤ *discipline of cost, material, technology, climate*

➤ *created a box-like structures of bricks/ stone*

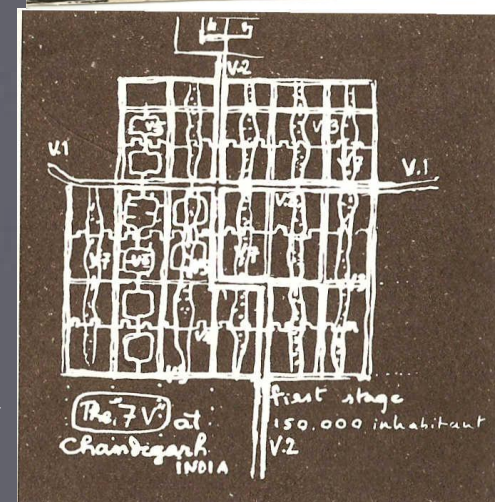
➤ *small windows protected by brise-soleil, jalis*

➤ *Which led to beginning of a style*

➤ *which Architects had not consciously sought*

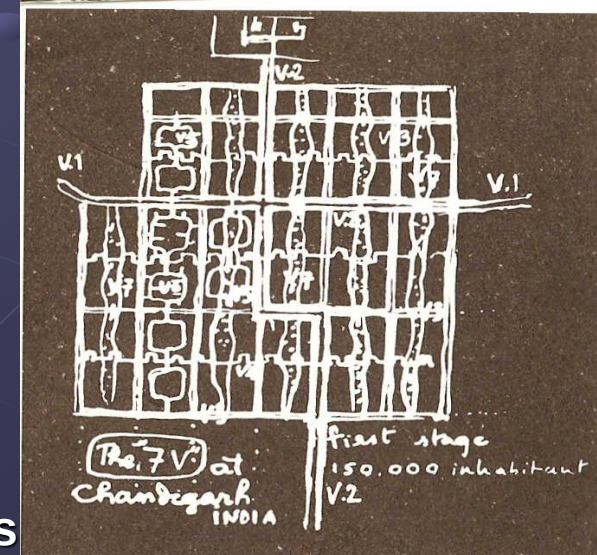
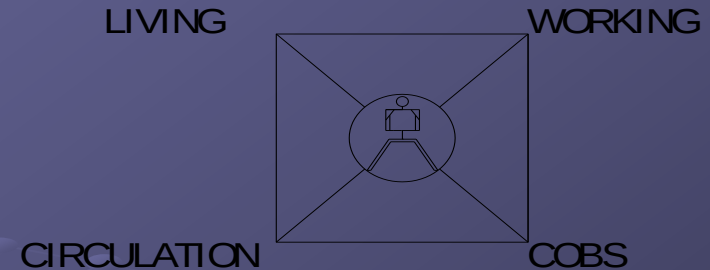
➤ *but became hallmark of Chandigarh architecture*

-Despite constraints, Corbusier promised a unique life to future inhabitants of the new city.



LE CORBUSIER'S MASTER PLAN

- The city plan based on four basic functions
 - Living
 - Working
 - Care of Body & Spirit-COBS
 - Circulation
 - Re-siting Capitol
 - Reduced area to be acquired for the city,
- Mayer's fan shaped city with curved network of roads, changed – adopting grid iron pattern of straight roads because:
 - Circulation of traffic demands a straight line
 - The curve is ruinous, difficult and dangerous;
 - it is a paralyzing thing.
 - The straight line enters into all human history,
 - into all human aims,
 - into every human act.
- Present urban form of Chandigarh is derived from:
 - Grid iron pattern with straight roads
 - Neighborhood units-sector.
 - circulation pattern based on 7vs (les sept voies)
 - grid of fast traffic with V3 roads defining edges



THE

RADIANT

CITY

THE ORION PRESS

soleil



espace

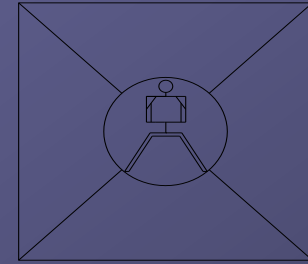


verdure



LIVING

WORKING



CIRCULATION

COBS

- The Radiant City
 - An organism capable of housing the works of man of machine-age society.
 - placed under the masterful government of natural conditions:
 - Sun
 - Space
 - Greenery
 - And its mission is the service of mankind:
 - To live
 - To work
 - To cultivate body and spirit
 - To travel about(in this order and obeying this hierarchy)

- City planned for a population of 0.5 million to be realized in 2 stages.

Stage-I (S1)

Sector 1 to 30-- covering 3642 hectares for 150000 population a low density development of 41.12 persons per hectare(16ppa)with high order of infrastructure / amenities. Land to be allotted on free hold basis.

Stage-II (S2)

Sector 31 to 47- covering 2428 hectares for 350000 population, a high density development of 144.15 persons per hectare(56ppa) (3.5 times of stage 1). Land to be allotted on lease hold.

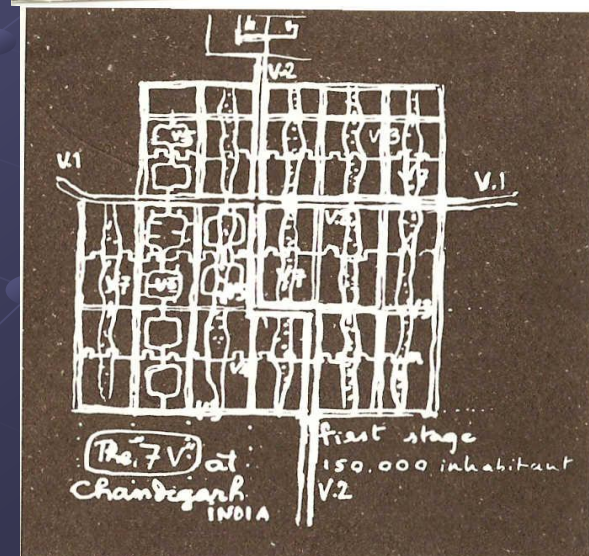
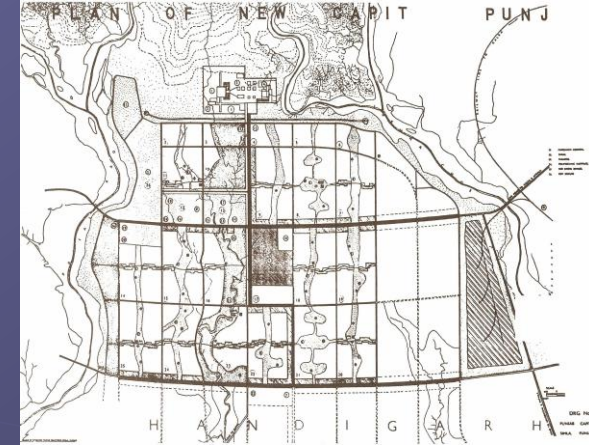
• Stage-III (S3)

- Re-densification of Stage-I -- to accommodate population exceeding 0.5 million without compromising with quality of life.

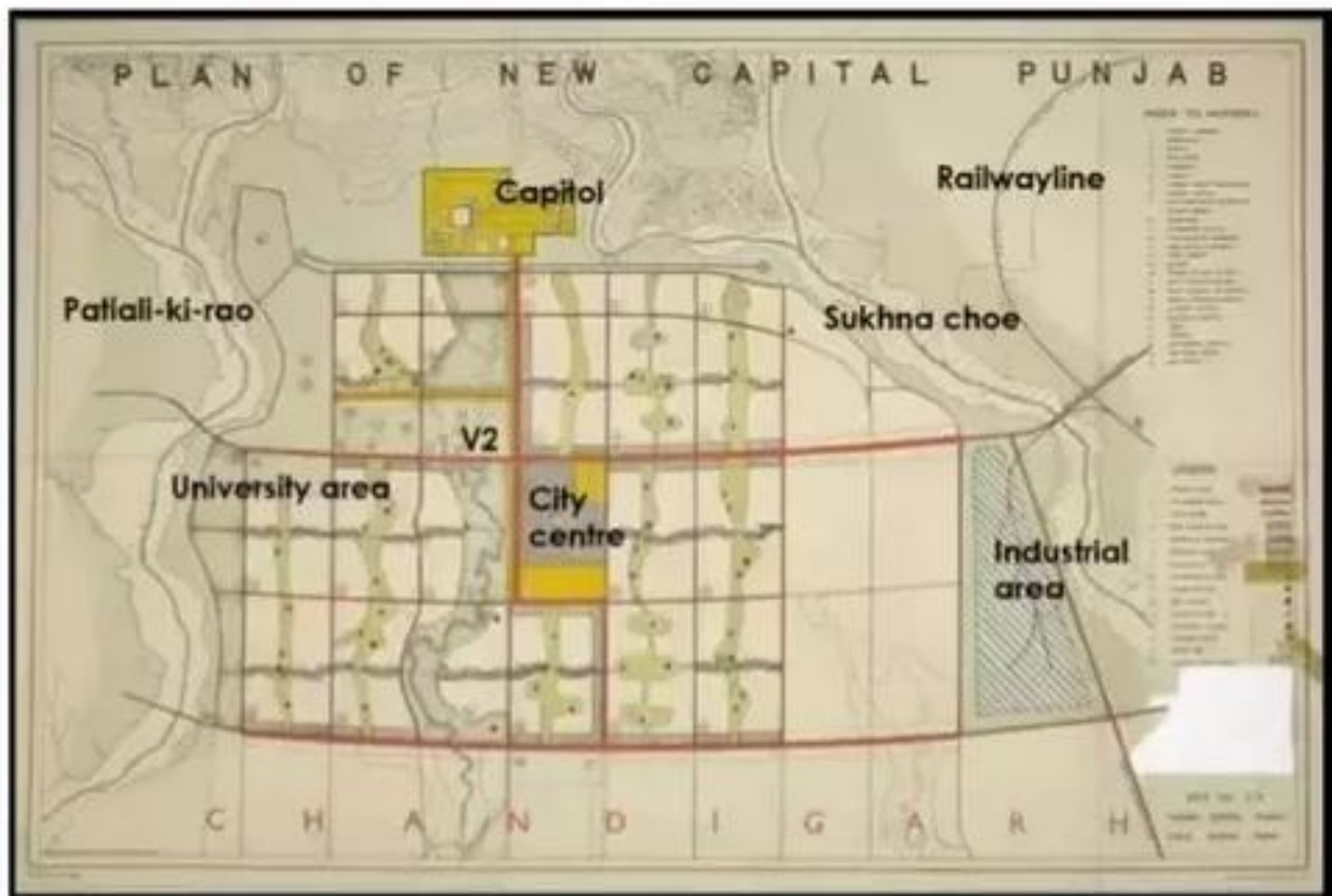


LE CORBUSIER'S MASTER PLAN

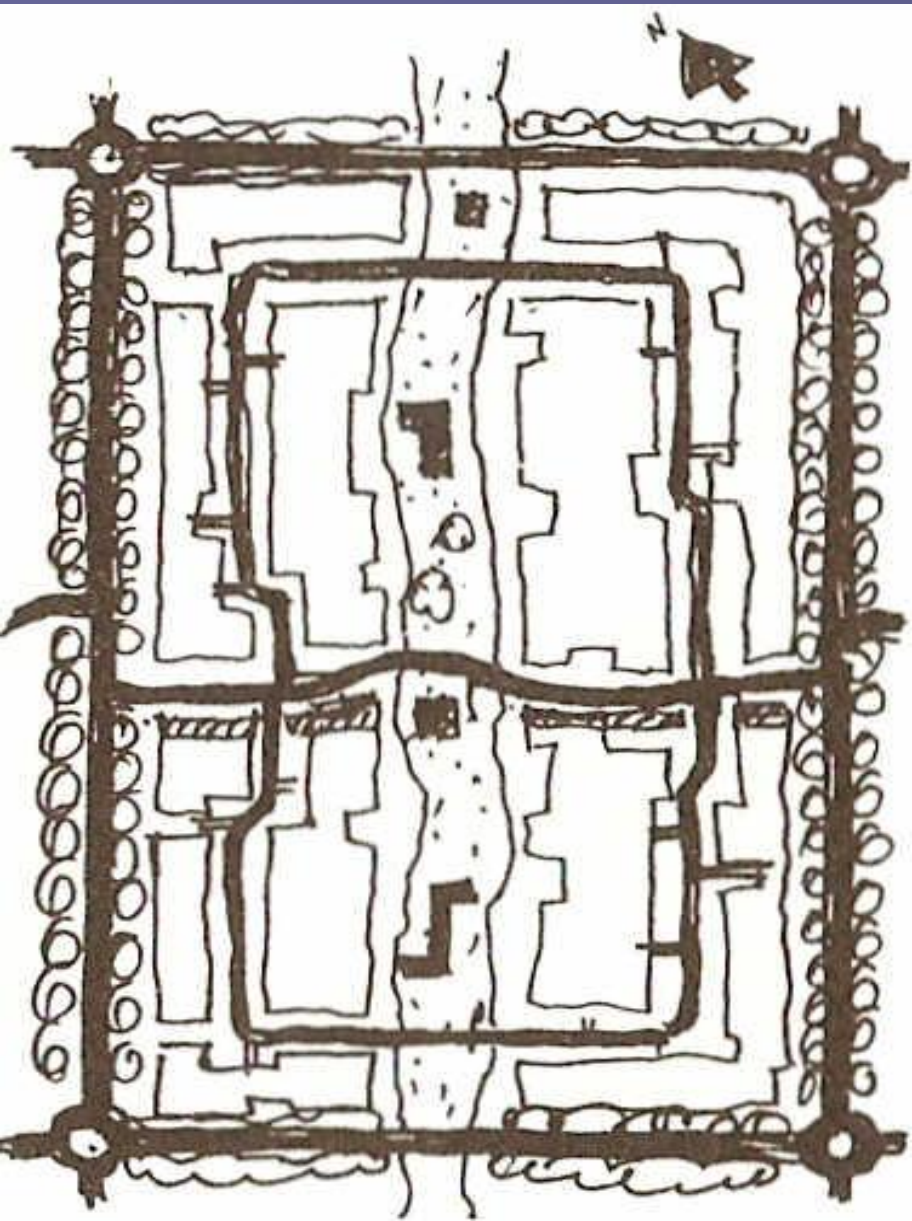
- Density of the sectors rising from north to south
 - as social class of inhabitant becomes lower,
 - city became a social map .
 - Arrangement explained by Verma ;
 - Le Corbusier wanted transition to more openness towards capitol and
 - drainage system being more rational due to natural fall south-wards.
 - Dry bed of subsidiary monsoon water-course made leisure valley meandering through town.
- Jane Drew called Master Plan-- a poetic significance, biological in context ,with
 - Commanding head - Capitol
 - Its heart -- commercial City Centre
 - Its hand of productivity - Industrial area.
 - Its hand of learning - University.
 - Its brain and intellectual centers in Parkways where are located museums, library etc.
 - Roads as Arteries - carriers of Blood in shape of Traffic with
 - Glass and Bricks as –Skin of the city/buildings



CORBUSIER'S PLAN OF CHANDIGARH



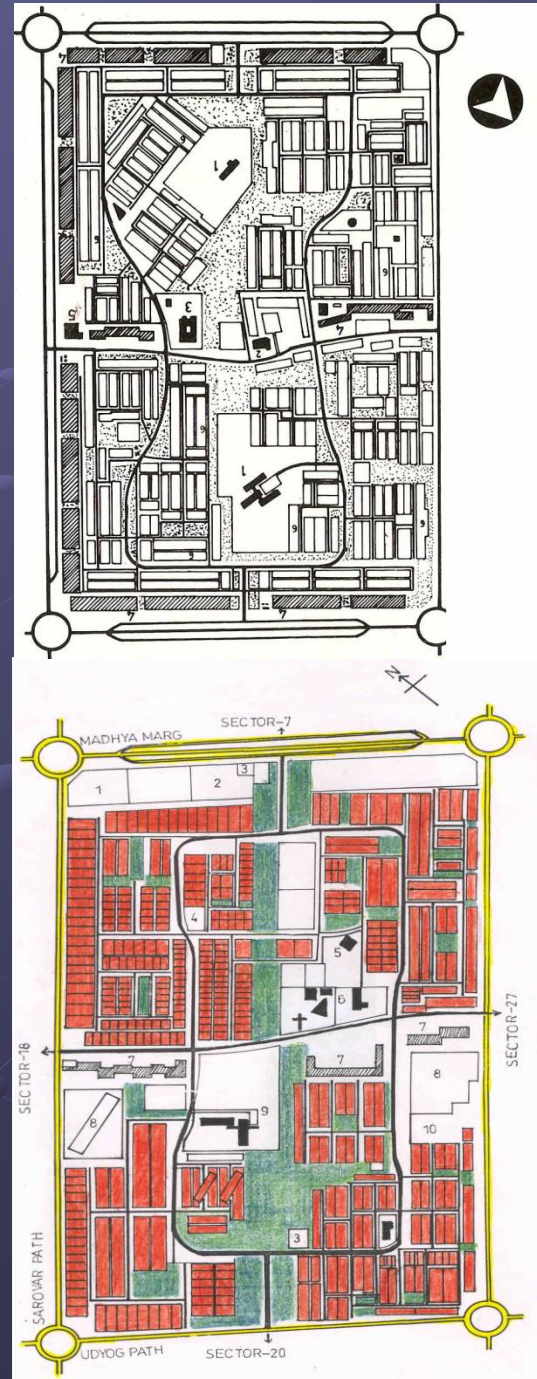
Living-SECTOR Defined



Sector Defined

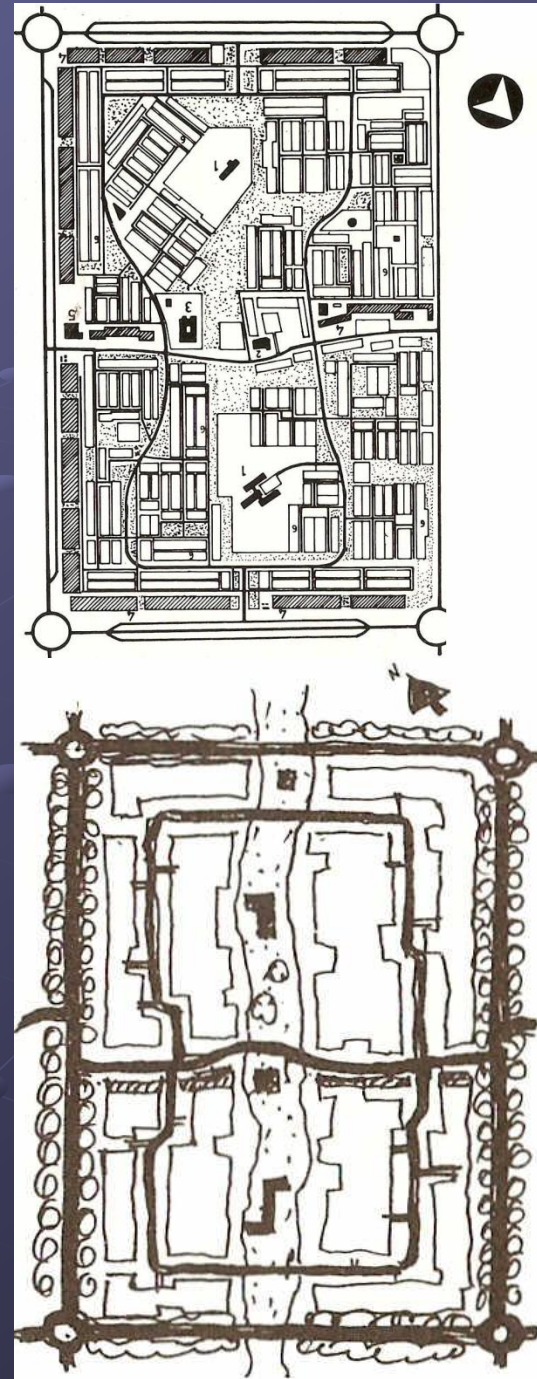
Sector-Container of basic human needs of:

- Living
- Working
- Care of Body and Spirits (COBS).
- Population varying between 5000-25000
- Size 800mx1200m- based on human scale/ walkability to reach any activity/corner
- Sector planning based on principles of:
 - Creating city within a city
 - Using human scale- walkability
 - Making Sector a 10 minutes city
 - Self-contained / Self-sufficient Neighborhood unit.
 - Safety from traffic- connecting man with nature
 - Introvert in character-Zanana city- Charles Correa
 - no house opening on fast carrier of traffic
 - bounded by fast traffic roads running on all sides.
 - With four entries, one from each side.



Sector Defined

- For linking with Greater Himalayas- a continuous green belt stretching North-East to South-West provided in centre of Sector.
- Green belt to house Education, Cultural, Religious and Community Buildings.
- All houses provided with- setbacks(open area) in front and rear.
- Though buildings of different Sectors varied but sectors follow same planning principles.
- Each Sector has a central green bisected by shopping street (V4).
- A loop road distributes the traffic in interior (V5) intersecting shopping street.
- Individual houses derive approach from roads- V6 -branching out of loop road.
- Grouping of houses /density pattern derived on basis of income.
- High income Sectors have low density and a pattern of detached houses.



Sector Defined

- For achieving higher densities, LIG Houses provided with terrace housing/built up houses on smaller plots.

- Sectors 7 & 8 are exception, planned on Mayer's concept of Super Blocks.

- Centre of focus -- V4 shopping street,

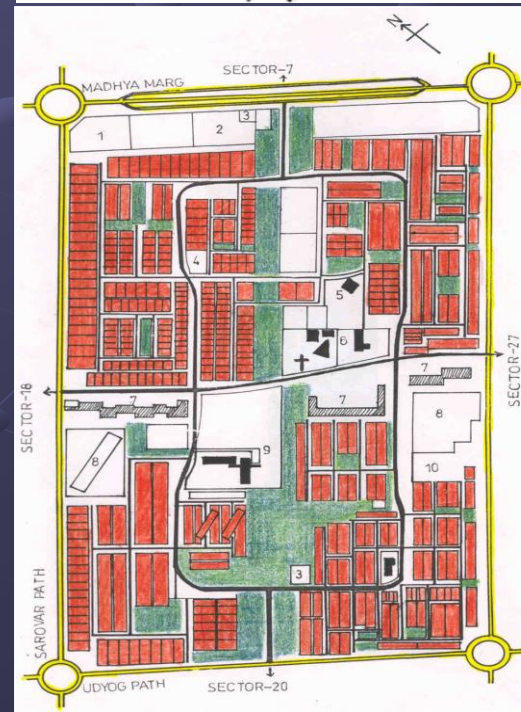
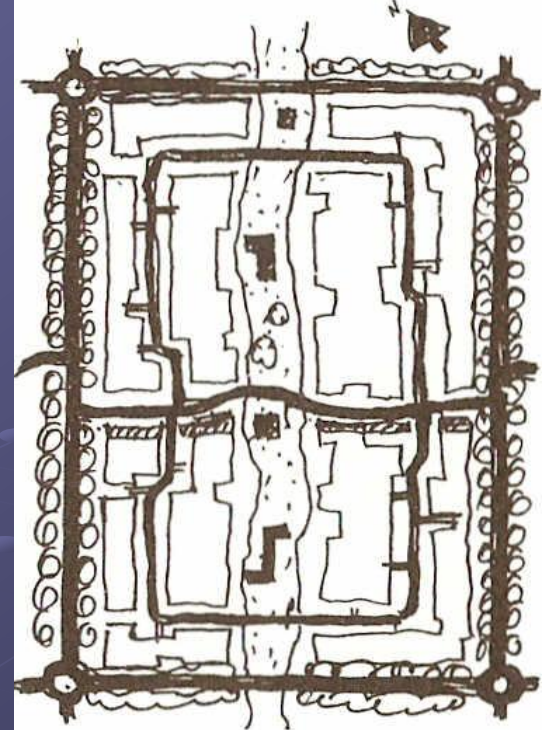
- V4-a curved road to slow down traffic with shops on one side (South-West) and verandah to provide shade to shoppers protection from sun/rain and to eliminate crossing of streets.

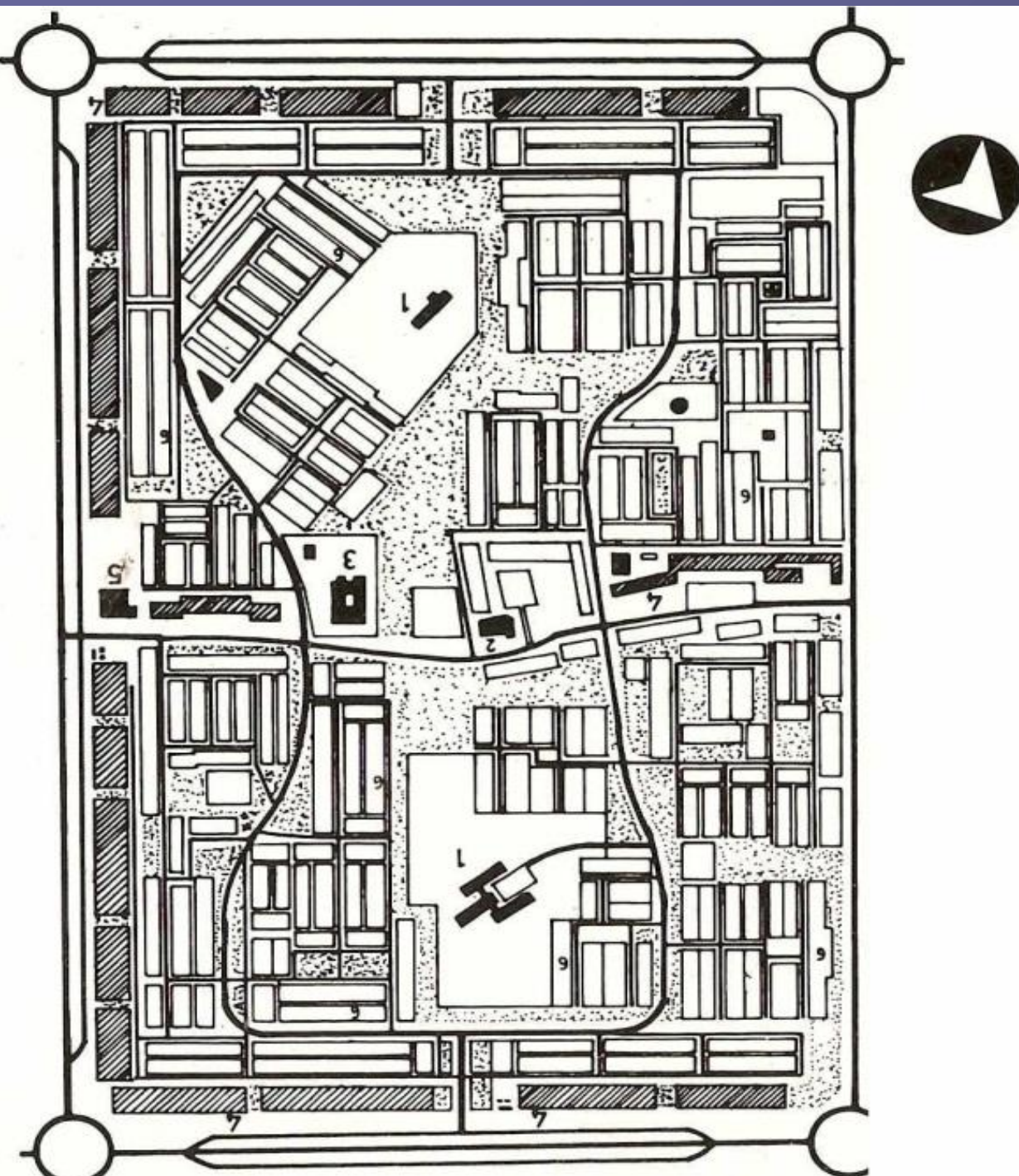
- Market linked with adjoining Sectors, forming a continuous ribbon.

- Variety of shops provided- from smaller booths to larger Shop-Cum-. flats

- Larger shops designed as three storied buildings with shops on ground floor and residence for owners on upper floors,

- Safe from traffic and in close proximity to the nature, sector constituted an attempt to create city within a city which provides for all the basic day to day material and social needs of the citizens in easy reach of the home, but at the same time linked to the larger scale of the city in terms of transport and services as well as architectural meaning.**





SECTOR -22
First Sector
planned by
Jane Drew

LIVING- HOUSING



Housing

● The focus of housing was:

- Oxonian program comprised 13 categories of government housing
- Type 1 for Chief Minister to Type 13 for peons.
- Type 14 with minimum accommodation designed for poor- 2 rooms, a space for kitchen, bathroom and rear open space
- Three lowest categories of government housing subsidized to maintain minimum standards of amenities.
- Economy, Technology and Climate governed design /construction of houses.
- Architects bound to follow state directives regarding cost /type of accommodation.
- Type 7 designed as semi-detached
 - higher types fully detached with
 - lower categories designed as terraced housing.



GOVERNMENT HOUSING

- Credit for designing Govt. housing goes to Pierre Jeanerette , Maxwell Fry and Jane Drew.
- Pierre Jeanerette designed all 13 categories of government housing except type 3, 7 and 8.
- House types named after the initials of the Architects. For example: 12F, 6J etc.
- Indigenous devices - sun-breakers and jalis diffused heat and provide sunlight , air.
- Verandahs, courtyards and terraces for sleeping outside- included in most house types.
- Locally made bricks used for load-bearing walls, parapets and sun-breakers.
- The houses built mostly single-storyed or double-storyed.
- Size of fenestration kept minimal to reduce cost
- Number of innovations used to minimize cost / time for construction using pre-cast elements



HOUSE TYPE 11-JC, CHANDIGARH





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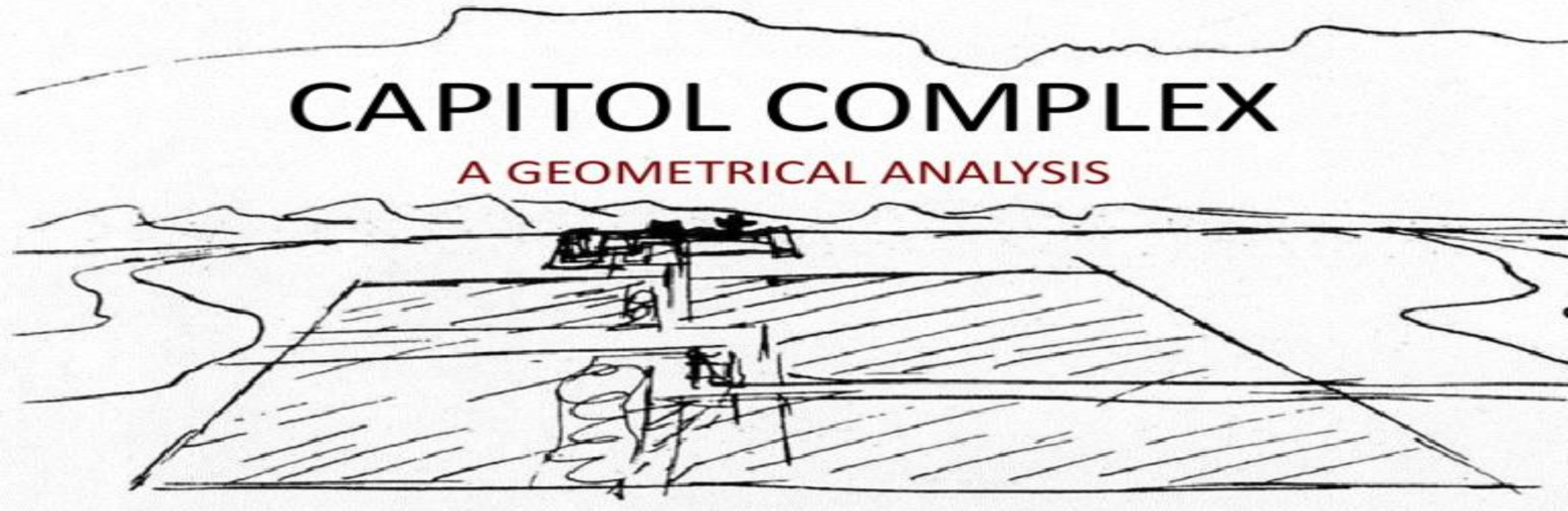


Working- Capitol

CHANDIGARH

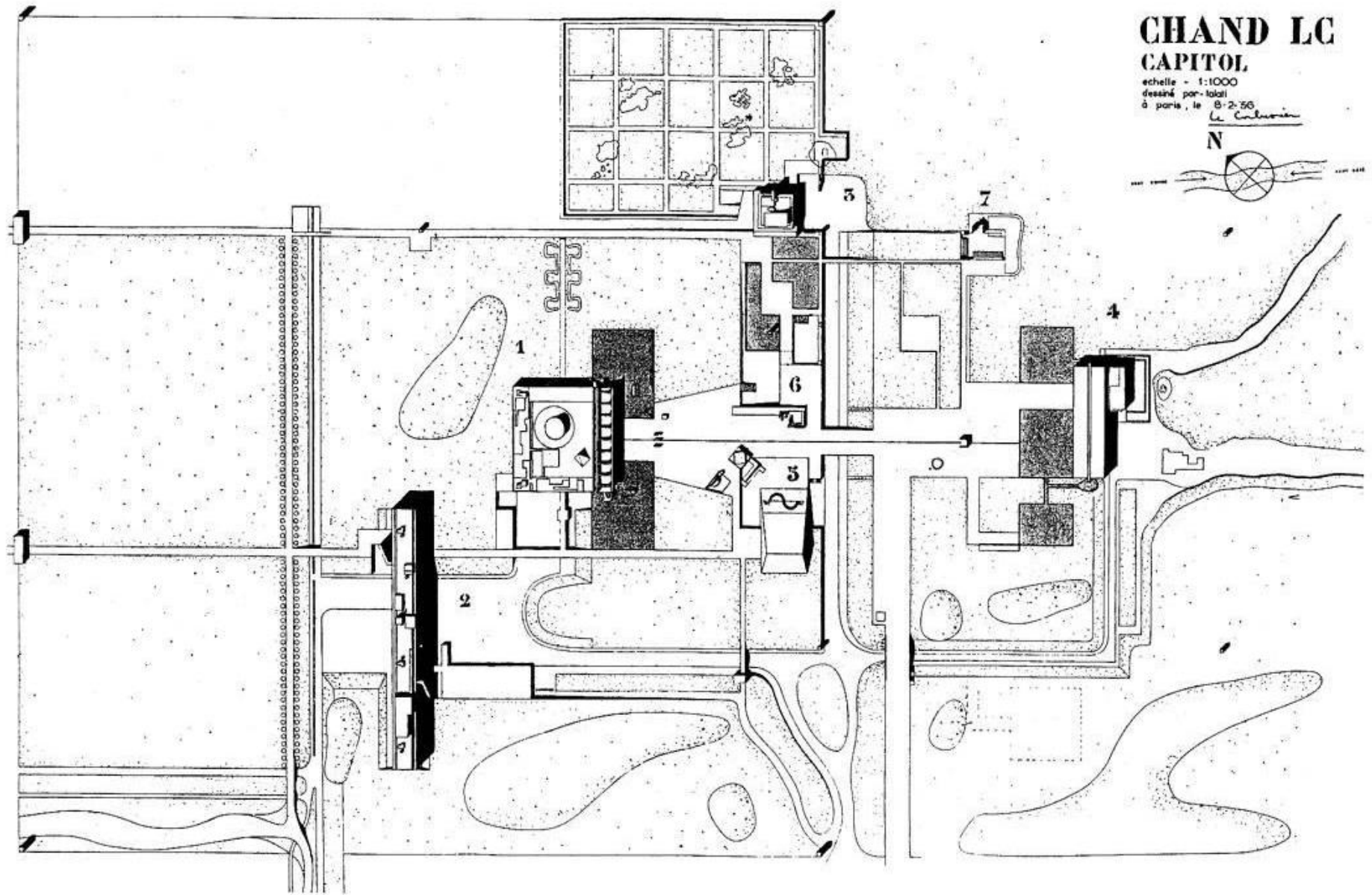
CAPITOL COMPLEX

A GEOMETRICAL ANALYSIS





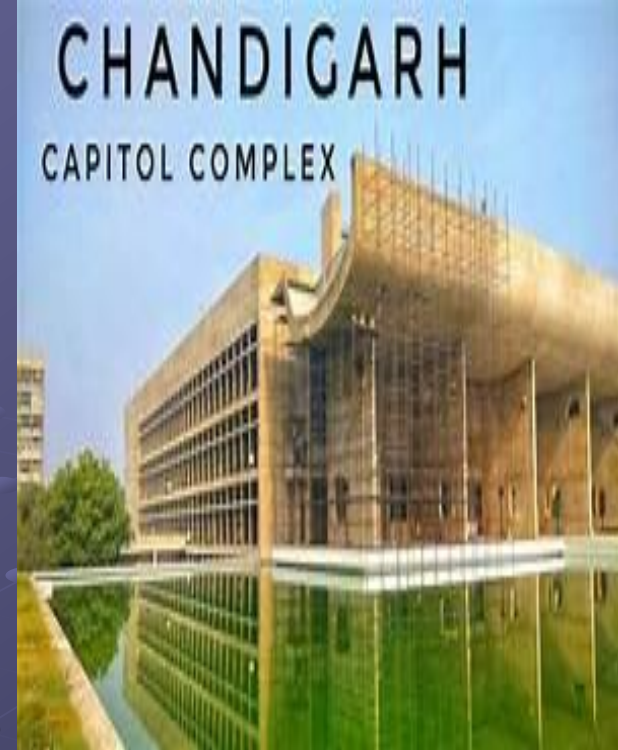
Acropole d'Athènes, Le Corbusier



CAPITOL COMPLEX-CHANDIGARH

CAPITOL

- City's Focal Point - an admirable Park, Mountains, Trees, Flowers Architecture.
- Its Architecture- most representative of Le Corbusier's work.
- Spread over 100 hectares.
- master plan asymmetrical consists of ;
 - four buildings
 - six monuments
 - arranged in three interlocking squares.
- Only three buildings realized- High Court, Legislative Assembly & Secretariat)
 - -- designed to represent 3 pillars of democracy-Governor's Palace, never built
- Replaced by Museum of knowledge
- Secretariat -a long, horizontal concrete slab form, -- western edge, high court -- Eastern edge -open hand crowning glory



Chandigarh's Capitol Complex-- on Sunday, July 16, 2016- declared by UNESCO as World Heritage
-- at the 40th session of World Heritage Conference in Istanbul, Turkey.

Capitol

- Planned and developed to be pedestrian,
- man master of himself,
- on his own feet, walking / living free of fear,

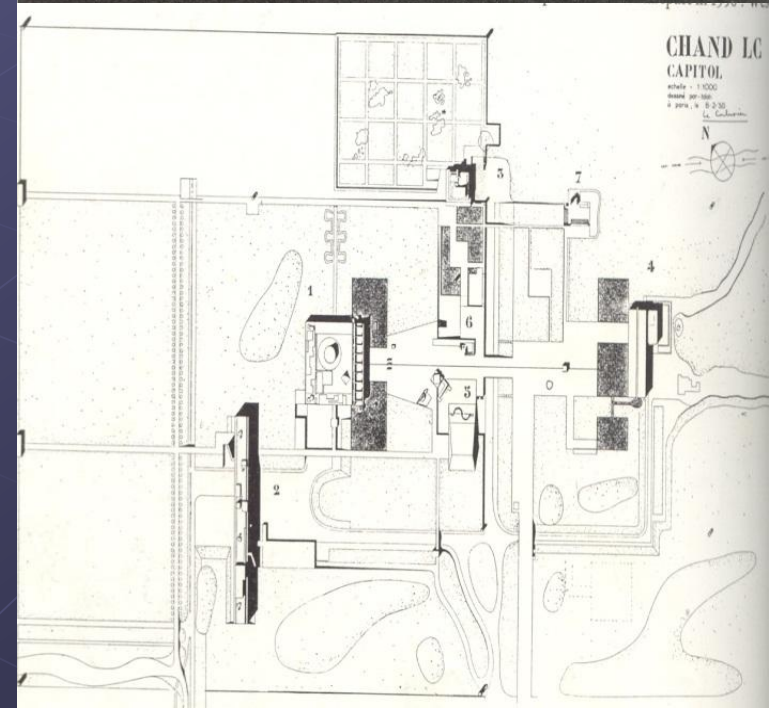
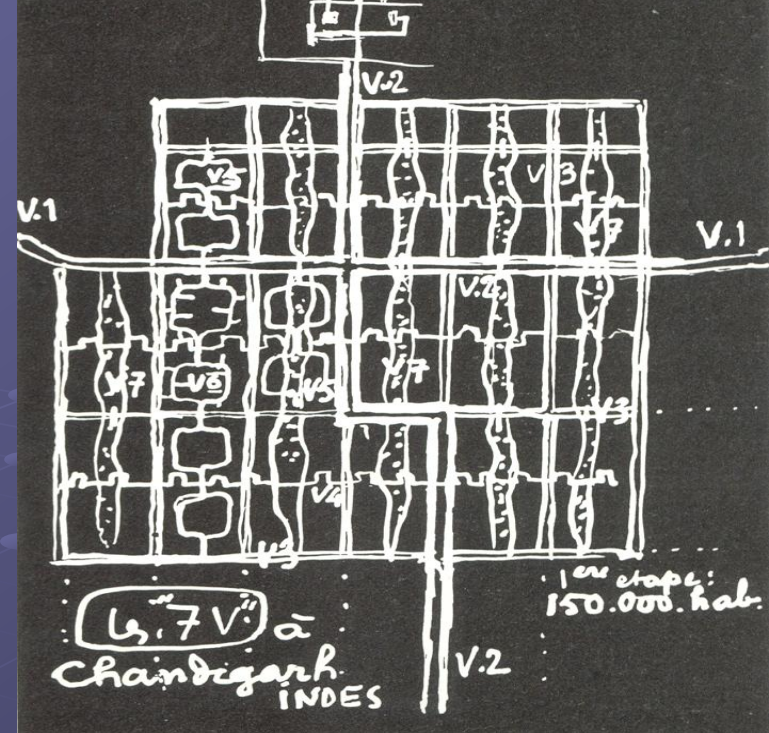
- automobiles prohibited in park.

- Clear segregation of pedestrian/vehicular movements with land arranged on two levels:

- a pedestrian plateau and
 - 5 meters below -roads and parking.

- Length of esplanade between High Court & Assembly

- distance from Hayward Gallery to Country Hall on London's South Bank (450 mt).



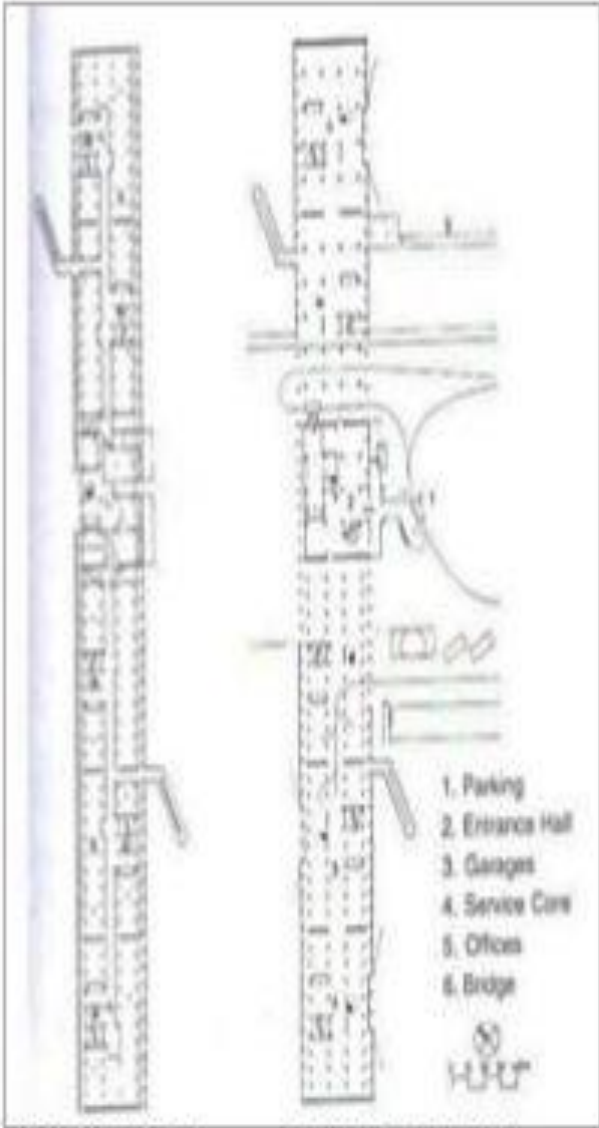
Secretariat

- largest in Capitol Complex
- Houses both state Govts.- Haryana / Punjab.
- - long / horizontal rough concrete structure
- 254 meters (833 feet) long, 24 meters wide, and 42 meters (138 feet) high.
- Defines western edge of Capitol Complex
- -- building consists of eight floors
- - with 6 blocks separated by expansion joints.
- -Building bears close resemblance to Marseilles apartment
- structure exteriors defined by exposed concrete ramps and small square windows.
- building designed to manage sun
- Green Roof minimizing heat transfer
- -Positioned North- South, with central corridor
- Minimising maintenance /promoting sustainability-enhances splendor of Capitol Complex
- - Project completed 1952









TYPICAL FLOOR PLAN

GROUND FLOOR PLAN



SECTION



SECTION



FREE FACADE

PROJECTED PORTICOS

SMALL ENTRANCE

BIG ENTRANCE

ASSEMBLY HALL PARABOLIC AND TRIANGULAR ROOF



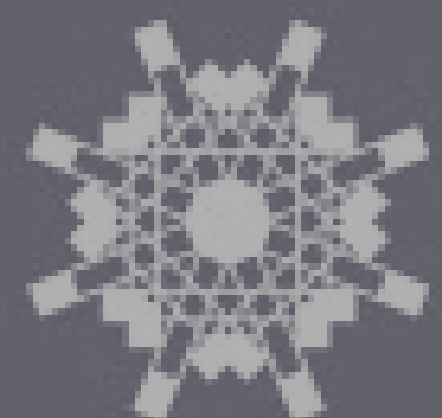
ASSEMBLY HALL



Conceived as horizontal structure –square in plan

Architecture not restricted to entrance, / façade,

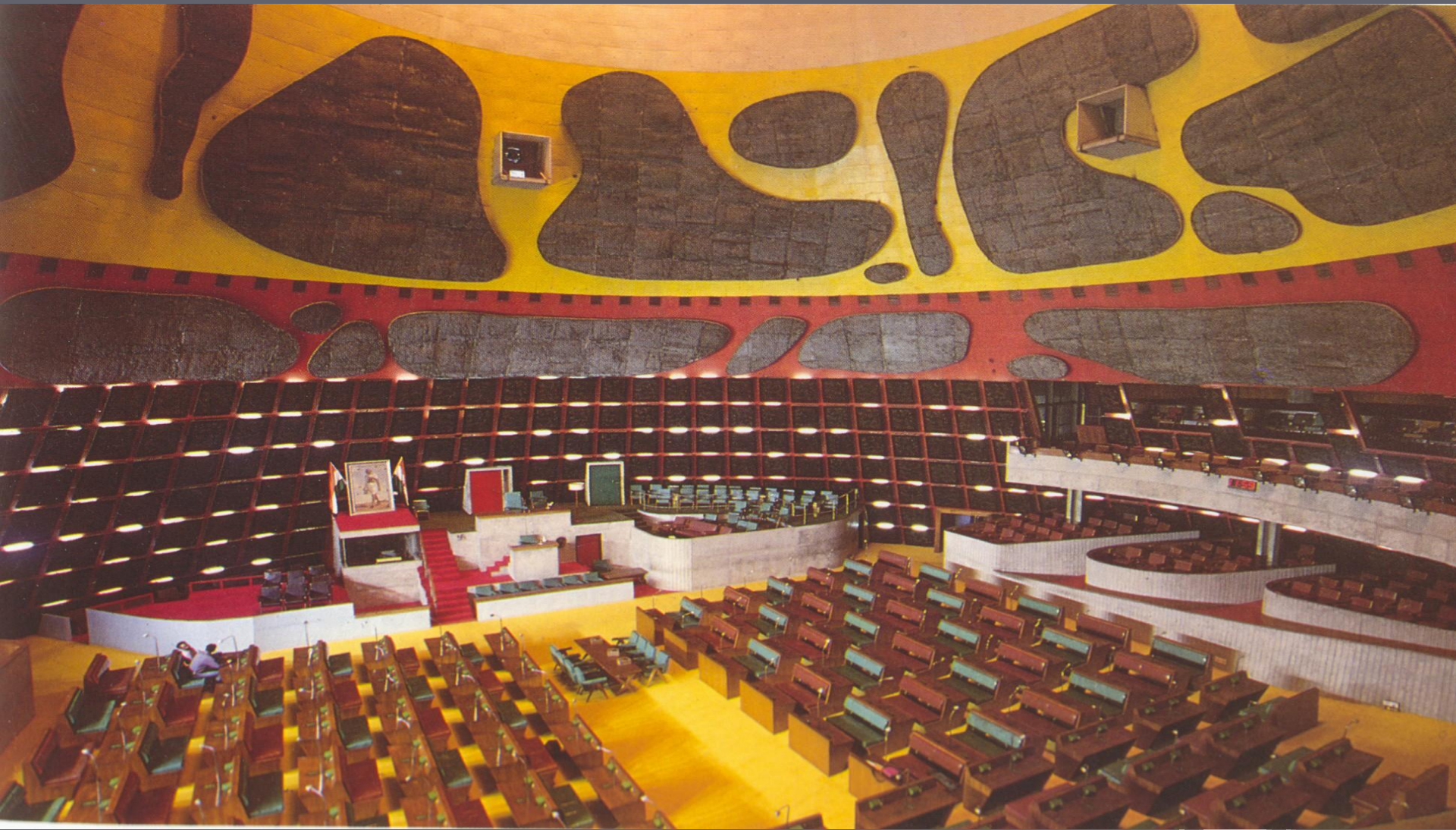
- but to functions of program/ spaces within building itself.-- 300 ft. square,
- three sides – house offices and conference rooms
- fourth side -- enormous portico
- which ‘orients’ building towards High Court
- Centre-- an interior court, 200 ft. across,
- -- ranging from 35 ft. to 45 ft. in height,
- -- where located -- hyperbolic form of assembly chamber,
- Rectangle (surmounted by a skew pyramidal roof) of council chamber
- Louvers extensively used to manage sun / give distinct character to building
- Extraordinary collection of spaces, ramps / platform levels that make up forum.







INTERIOR- STATE ASSEMBLY



Interior of dome painted in three horizontal bands-red, yellow and white to modulate height of

Ceremonial Door

- 25 square foot door,
 - with enameled panels-- airlifted from Paris.
- Door opened only on ceremonial occasion
- Door adorned with vibrant colours
- divided into upper and lower halves.
 - upper half- depicts man's relationship with cosmos, includes
 - imagery representing solstices, eclipse and Equinox,
 - Lower half -- house animals and natural forms.
 - desert depicts original order of Earth,
 - greenery represents Garden Of Eden.
 - door also displays rivers, trees, bulls, turtles, and
 - proverbial Tree of Knowledge in centre of door bears fruits of knowledge.



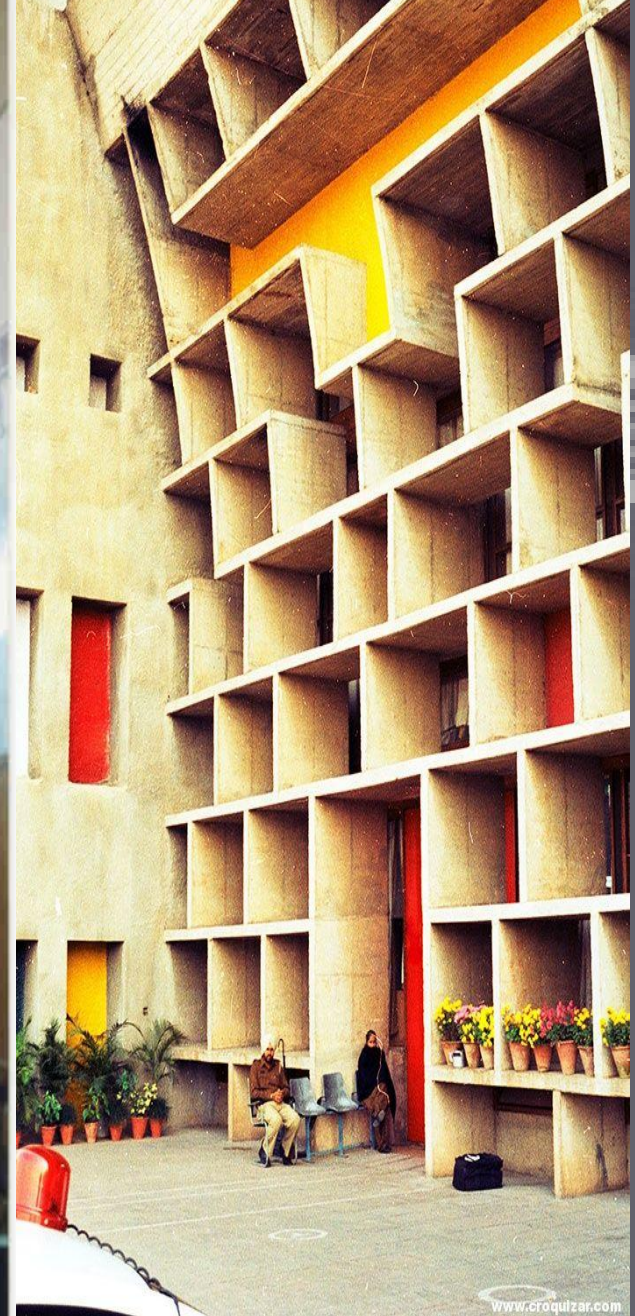


High Court

- Designed as linear block facing piazza.
- Special entrance for judges created -- high portico resting on three giant pylons painted in bright colours-
- Using tradition of Buland Darwaza of Fatehpur-Sikri
- to manifest - Majesty of Law to all who enter.
- Courtroom of Chief Justice / eight smaller courts, divided by a great entrance hall.
- Great portico symbolism "umbrella of shelter" of law to ordinary citizen visually punctuate otherwise rhythmic facade of High Court.
- Each courtroom provided with independent entrance from piazza-
- **Colourful tapestries--** one each courtroom, covering entire rear wall -- 12 /8metres square in main courtroom /smaller courtrooms.
- Symbols of man, earth, nature, emblems of India, scales of justice depicted in abstract, geometric patches.
- used for promoting acoustical reasons.







INTERIOR OF CHIEF JUSTICE COURT ROOM CHANDIGARH



GOVERNOR'S PALACE



MONUMENTS







TOWER OF SHADOWS



Layout Plan

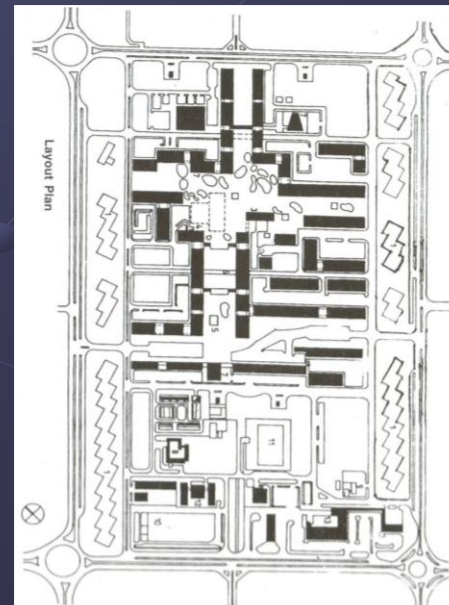
- | | | |
|------------------------------|-------------------|----------------------|
| 1. High-rise Buildings | 5. Plaza | 9. Fire Station |
| 2. Central State Library | 6. Overbridge | 10. Parade Ground |
| 3. Town Hall | 7. Cinema Hall | 11. Football Stadium |
| 4. Post & Telegraph Building | 8. Police Station | 12. District Courts |
| | | 13. Bus Terminus |

City Centre- Sector 17

- Designated as civic/ commercial centre of city
- spread over 290 acres
- consists of three large plazas flanked by retail/ institutional buildings.
- commercial zone/ civic zone.
- Commercial zone -includes Shop-cum-office, five cinemas, Central Library, Town hall, Post & Telegraph Office, Bank Square, Petrol Pumps,, Hotels, proposed Eleven Storeyed block
- . Civic zone includes Interstate Bus Terminus, Fire Station, Exhibition /Parade Ground, District Courts, Treasury Office, Police Headquarter; Police Housing, and Football Stadium
- “System of Construction /Architectural Treatment of Exterior Controls”
- four-story height for all commercial buildings, flanked by seven storied blocks.
- Max height restricted to 57’7”.
- With bay size (17’-3”) / 11’10” feet wide compulsory verandah on ground floor and a unifying exterior pattern of
- columns and standardized concrete balustrades.

SECTOR 17 COMMERCIAL CENTRE

- A central piazza with two wide promenades running horizontally and vertically is the focus.
- Like Capitol Complex - segregation of vehicular and pedestrian traffic
- Vehicles confined on the periphery of central place
- Pedestrian Plaza surrounding by important public buildings.
- Vehicular traffic cross central plaza at raised level i.e. Over bridges.
- Provision for parking made at both ground/underground level.
- Eleven storyed tower planned to give a sense of urbanity



11 STOREY

AT SECTOR 17, CHANDIGARH



0

1

2

3

4

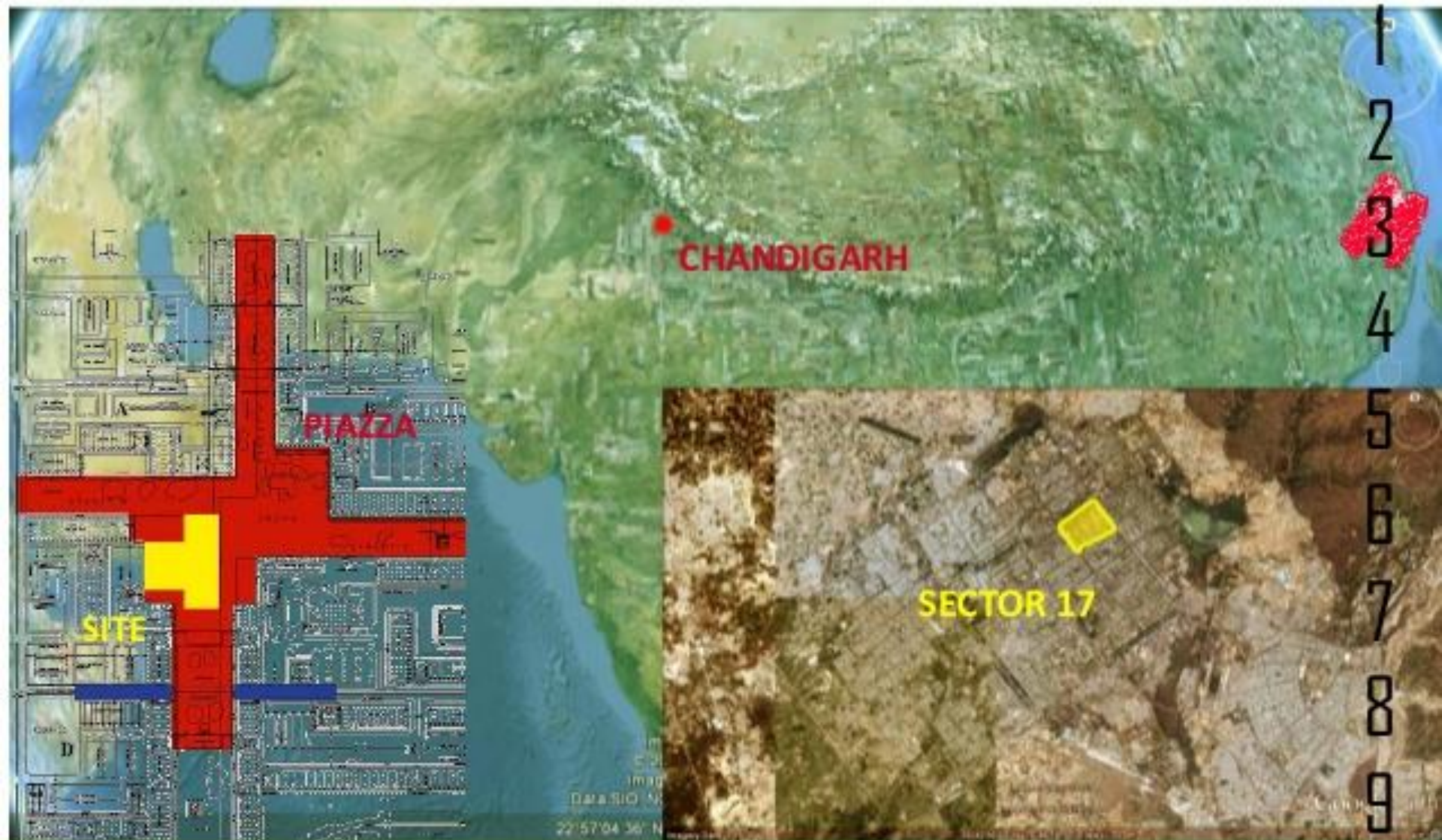
5

6

7

8

9





PARKING IN SECTOR 17 CITY CENTRE



SECTOR 17 PLAZA



VIEW OF PLAZA, SECTOR 17 AT NIGHT



kapsons



kapsons



UNITED COLORS OF BENETTON.



Sindhi's

VEG. P

sale
Calvin Klein Jeans

kapsons

SALE 50%
FREESTYLE BENETTON

sons

kapsons

UNITED COLORS OF BENETTON.



PHILASH

ANCY
SNOOKER, POOL
CROQUET, CAROM

GIMI

OMY

kapsons

LTRO GENIO

Deni's Parker

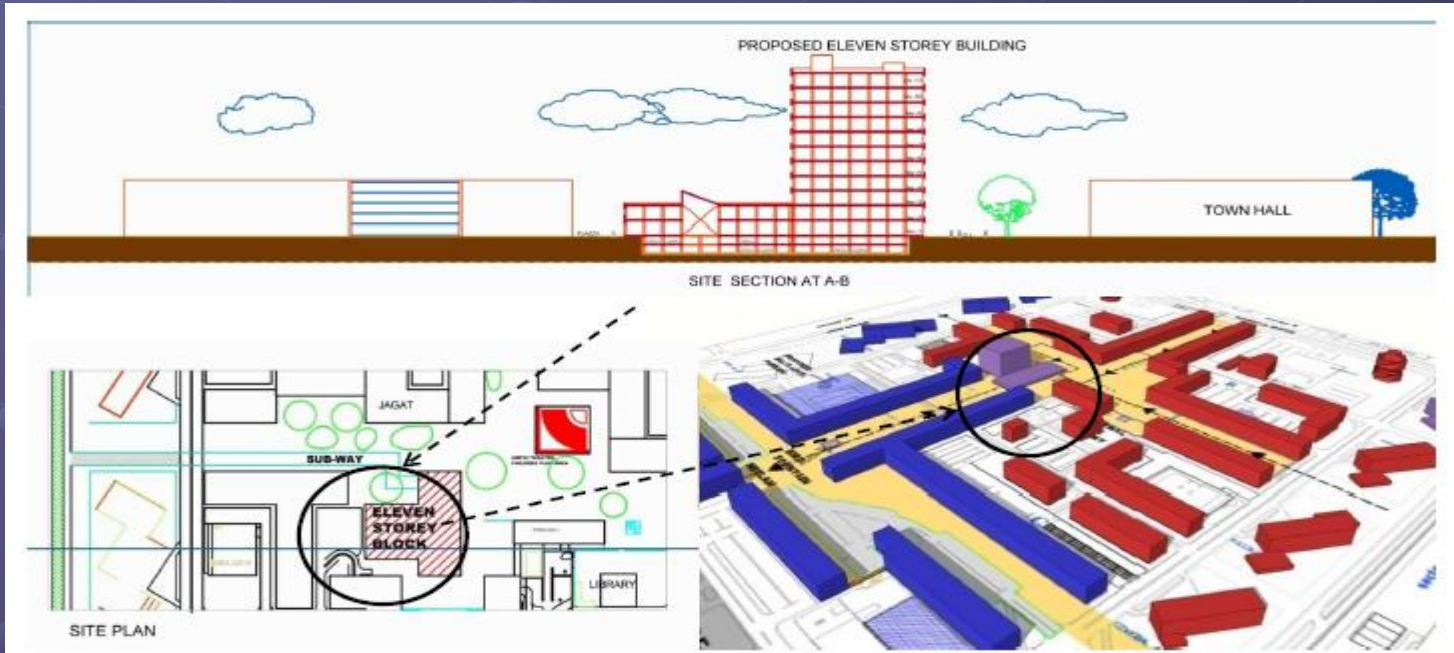
Reebok

le





Changing Context of Sector 17



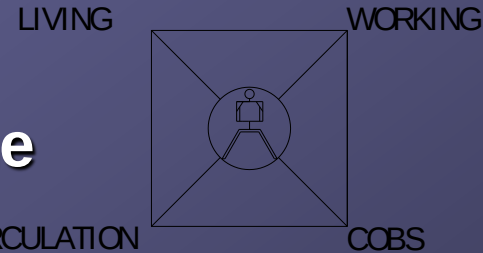
CHANDIGARH



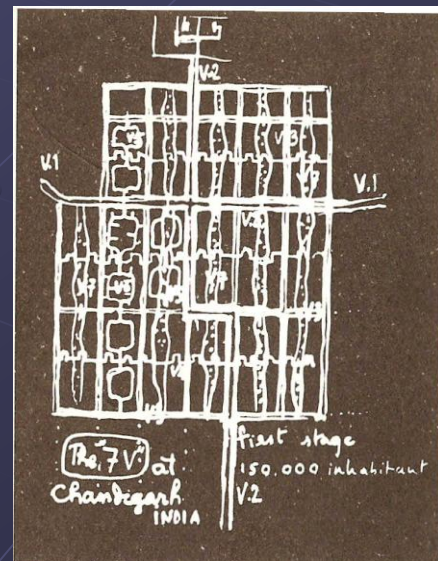
Care of body & spirit (cobs)

Care of Body & Spirit (cobs)

Caring for physical /meta- physical health of city/residents.



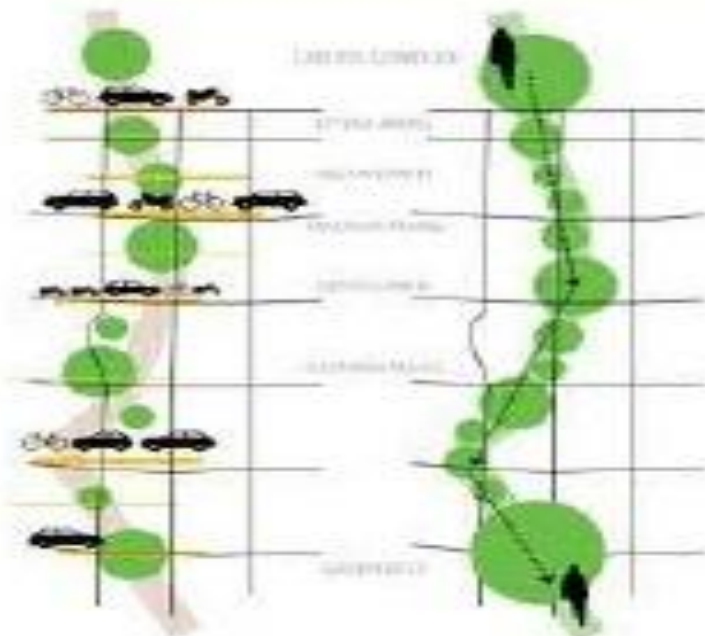
- **Education**--College of Arch. PEC, Punjab University; Colleges of men & women, Home Science, Polytechnic.
- **Culture**--College of Arts, museum, art gallery, Centre of performing arts, Tagore theatre,
- **Leisure** --**Valley of leisure**- transforming 6 meter deep seasonal rivulet-- width ranging from 100 to 300 meters depression-- into drainage channel for rainwater -- a linear park running full length of city vertically with undulating landscape, water features, host of trees, sports studio unifying sectors of different densities/characters.
- - seasonal river on eastern side dammed to create an artificial **lake-Sukhna**, lake club, golf club, Chandigarh club Rajindra park, Rose garden, Japanese Garden Golf course and golf club



- **--Sports** complexes and sports stadiums.

Chandigarh Master Plan- Le Corbusier





SECTOR 3

MOUNTVIEW

D.A.V. COLLEGE

SCHOOL OF ART

MUSEUM / ART GALLERY

MUSEUM OF SCIENCE

SECTOR 16

SECTOR 17

SECTOR 16





ROSE FESTIVAL की अनोखी रौनक





Terraced Garden, Sector-33

Garden of Palms- Leisure Valley

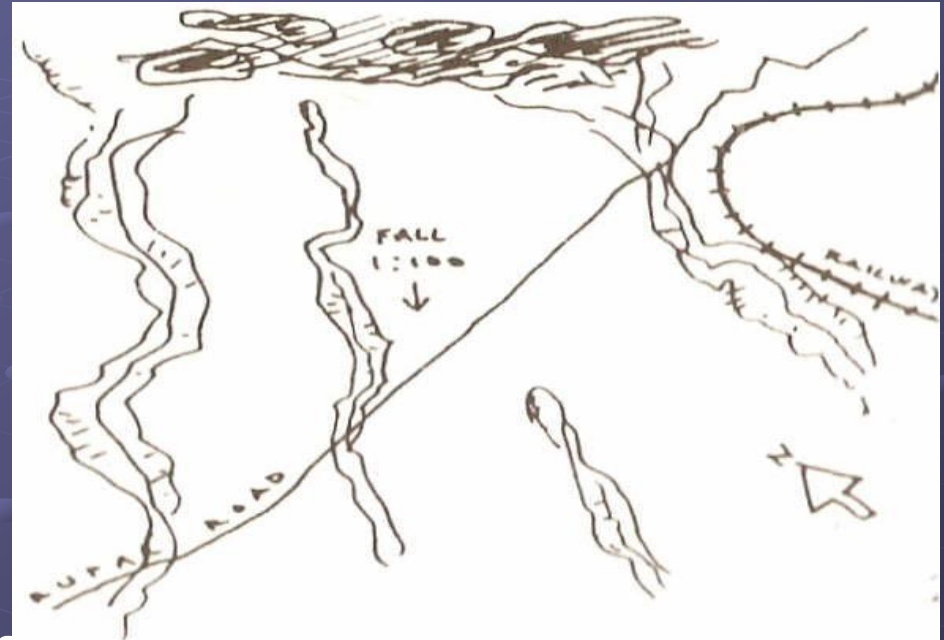


SUKHNA LAKE



SUKHNA LAKE

- Manmade water feature
- Conceived by Le Corbusier,
- As a gift to city for;
- modulating micro- climate
- Recharging Ground Water
- providing dramatic vistas of Capitol and Mountains.
- 3-km long 14m high earthen dam created.
- No vehicular movement permitted
- Planned as Pedestrian Paradise
- WHERE PEACE and TRANQUILITY ALWAYS PREVAILS









LAKE CLUB

- Designed by Le Corbusier.
- around a central Courtyard.
- Simple structure.
- Single-storyed bldg. sunk 3-M below road level --so that structure does not dominate



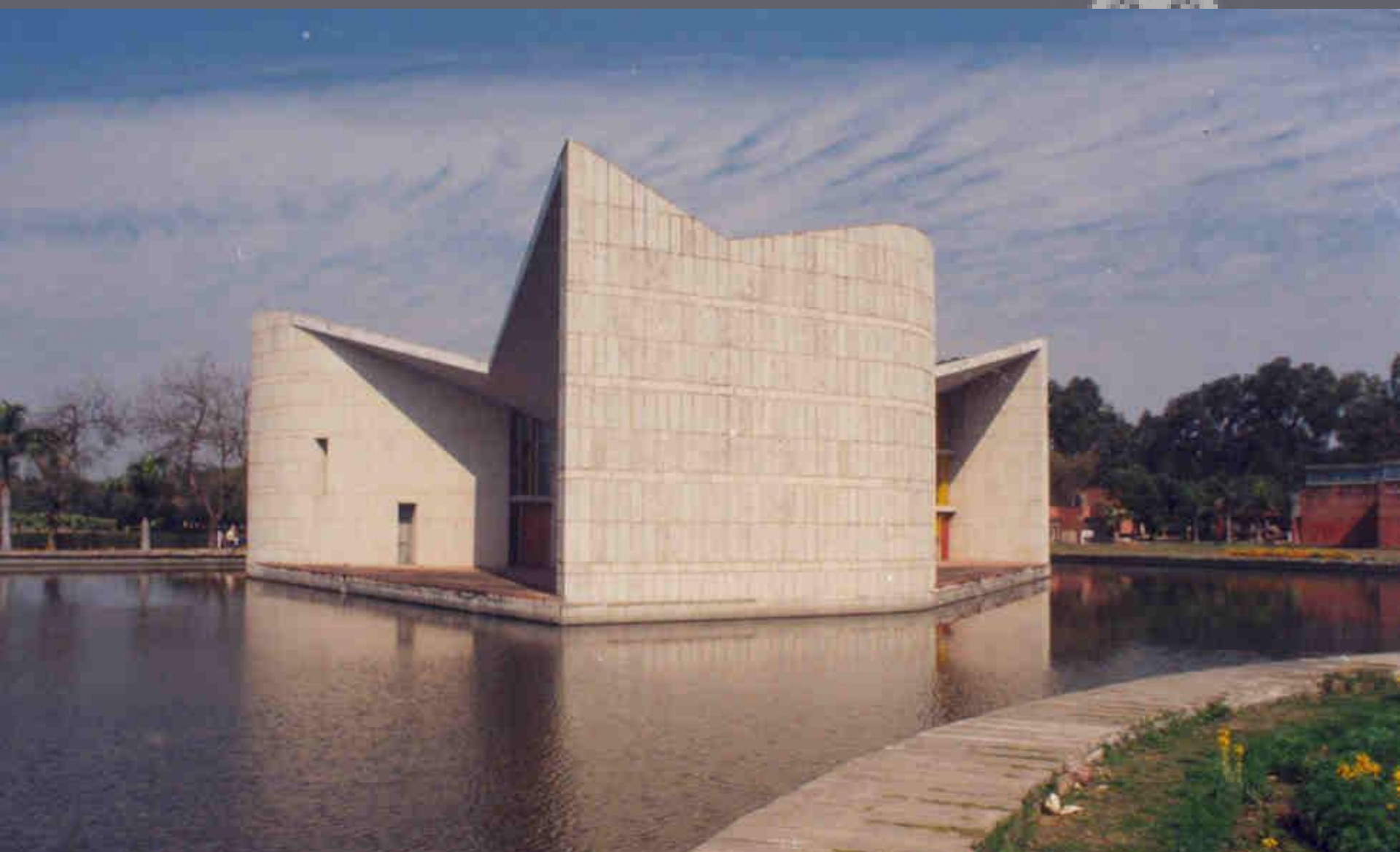


- **CHANIGARH MUSEUM---SQUARE SPIRAL PLAN**
- BUILT ON COLUMNS HAVING ENTRANCE AT GROUND LEVEL



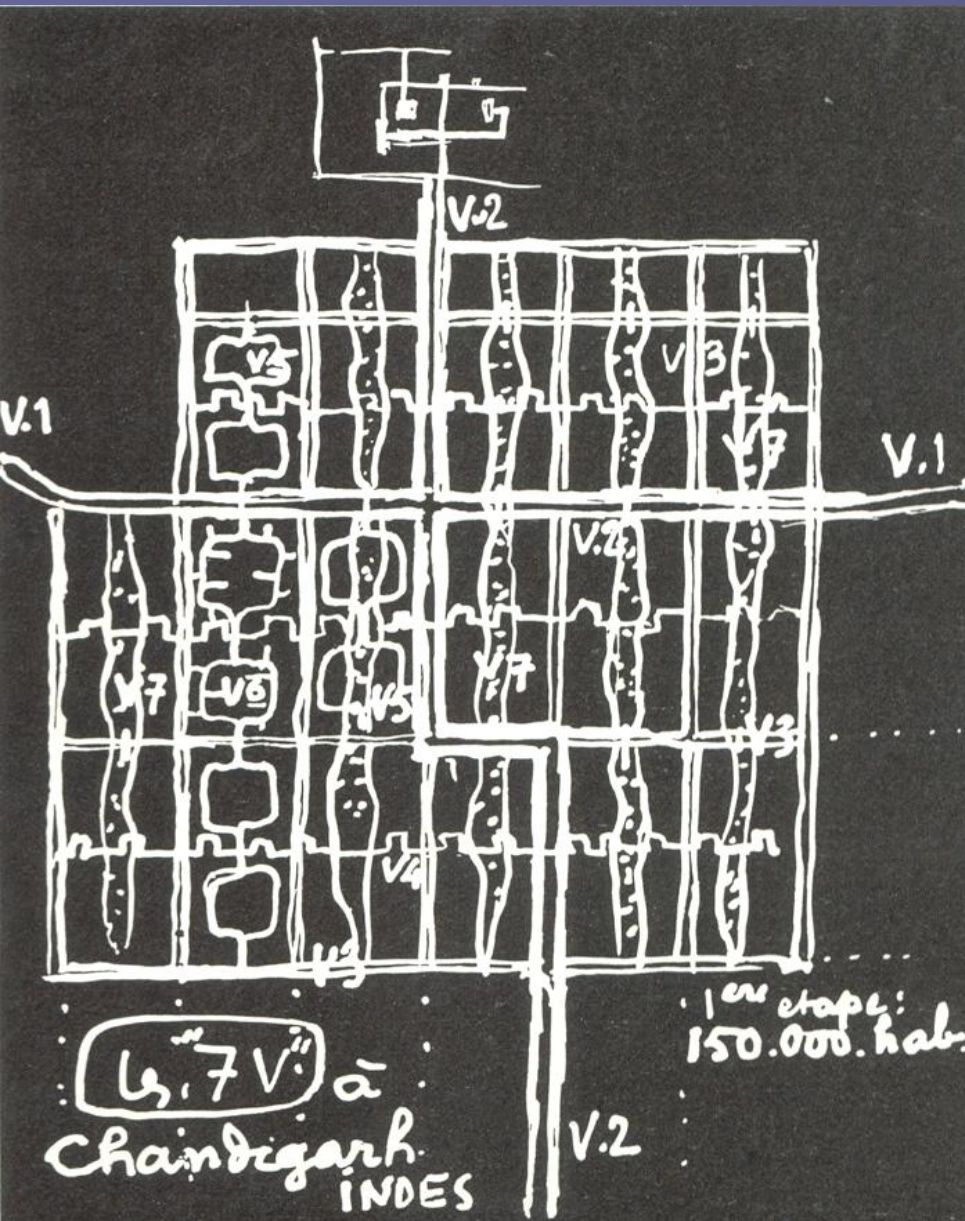
COLLEGE OF ARCHITECTURE

FRONT FAÇADE ADORNED WITH DEEP SCREEN OF PRE-CAST CONCRETE, A SORT OF MINIATURE brise-soleil



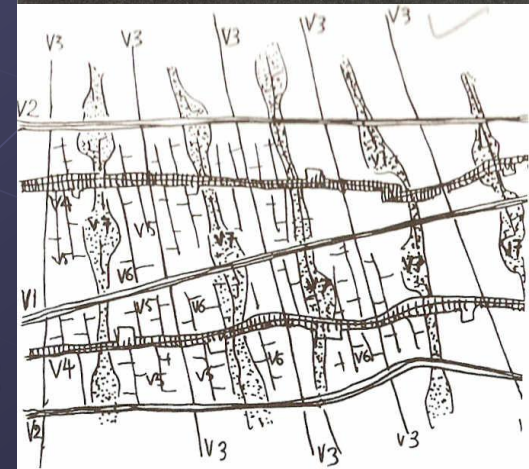
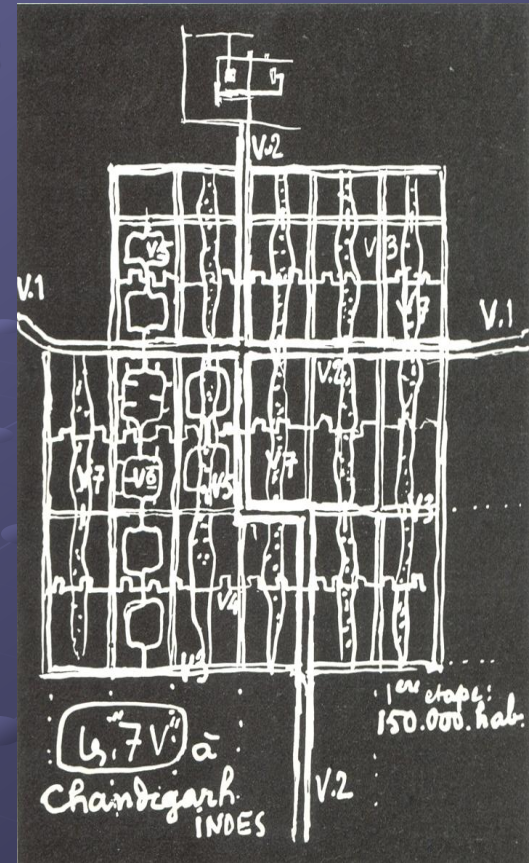
**GANDHI BHAWAN, PANJAB UNIVERSITY PLACED IN
THE POOL OF WATER TO CREATE A QUIET,
MEDITATIVE ATMOSPHERE**

CIRCULATION SYSTEM - RULE OF 7Vs



CIRCULATION SYSTEM

- System of roads based on system of 7Vs (les sept voies)
 - evolved for urban traffic by CIAM.
 - Symbolizes structure and discipline of a tree.
 - Describes hierarchy of roads. importance and speed.
 - meets need of fastest / slowest traffic of bicycles/pedestrians.
 - The role / function of 7Vs defined as under:
- V1:** Arterial roads -bringing traffic from outside to city.
- V2:** Major Avenue – most important streets in town
- forming major axes of city
 - connecting important nodes.
- V3:** Sector-definer- for fast moving traffic
- V4:** Shopping streets,
- V5:** Distributor road
- V6:** Smallest road leading to individual houses.
- V7** Pedestrian pathways running through open space .
- V8 bc:** Bicycle tracks running through green belt.
- Fast traffic absorbed by V2 & V3s whereas
 - intra-sector traffic taken care by V4, V5 & V6
 - Network of 7Vs- most economical
 - allowed slow moving traffic to reach every door
 - with small area taken up by circulation leaving vast spaces free.



CIRCULATION SYSTEM

For catering to growing traffic/uninterrupted flow of traffic, inter-section of V3/V2 roads were planned for a four stage development

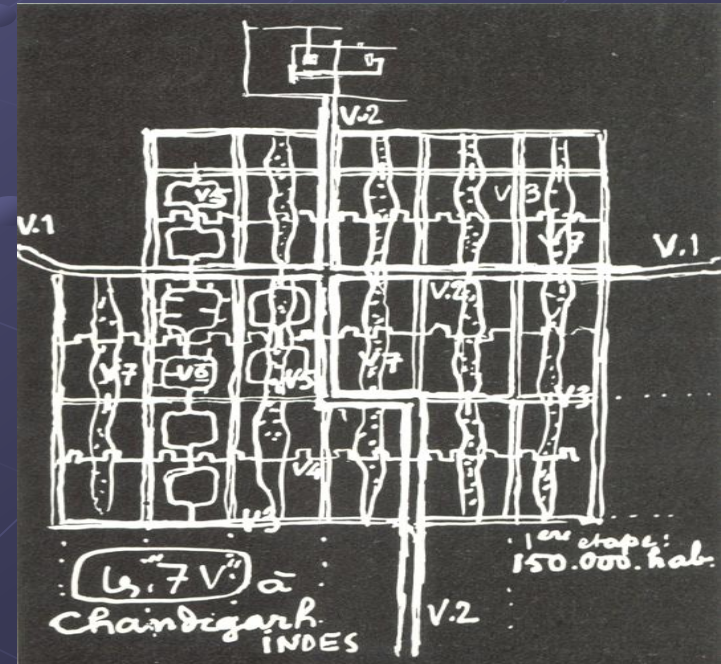
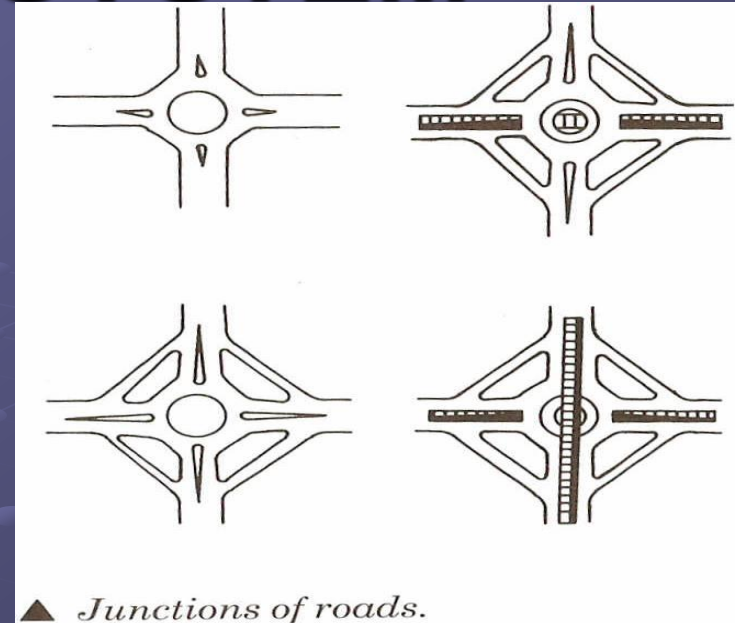
- In first stage intersection to consist of a small roundabout.
- In second stage auxiliary turning lanes would be added.
- An underpass shall be added in third stage and
- In final phase, an overpass planned to meet final requirement of traffic.

No road to be named after any individual etc.

Roads named according to importance and attributes.

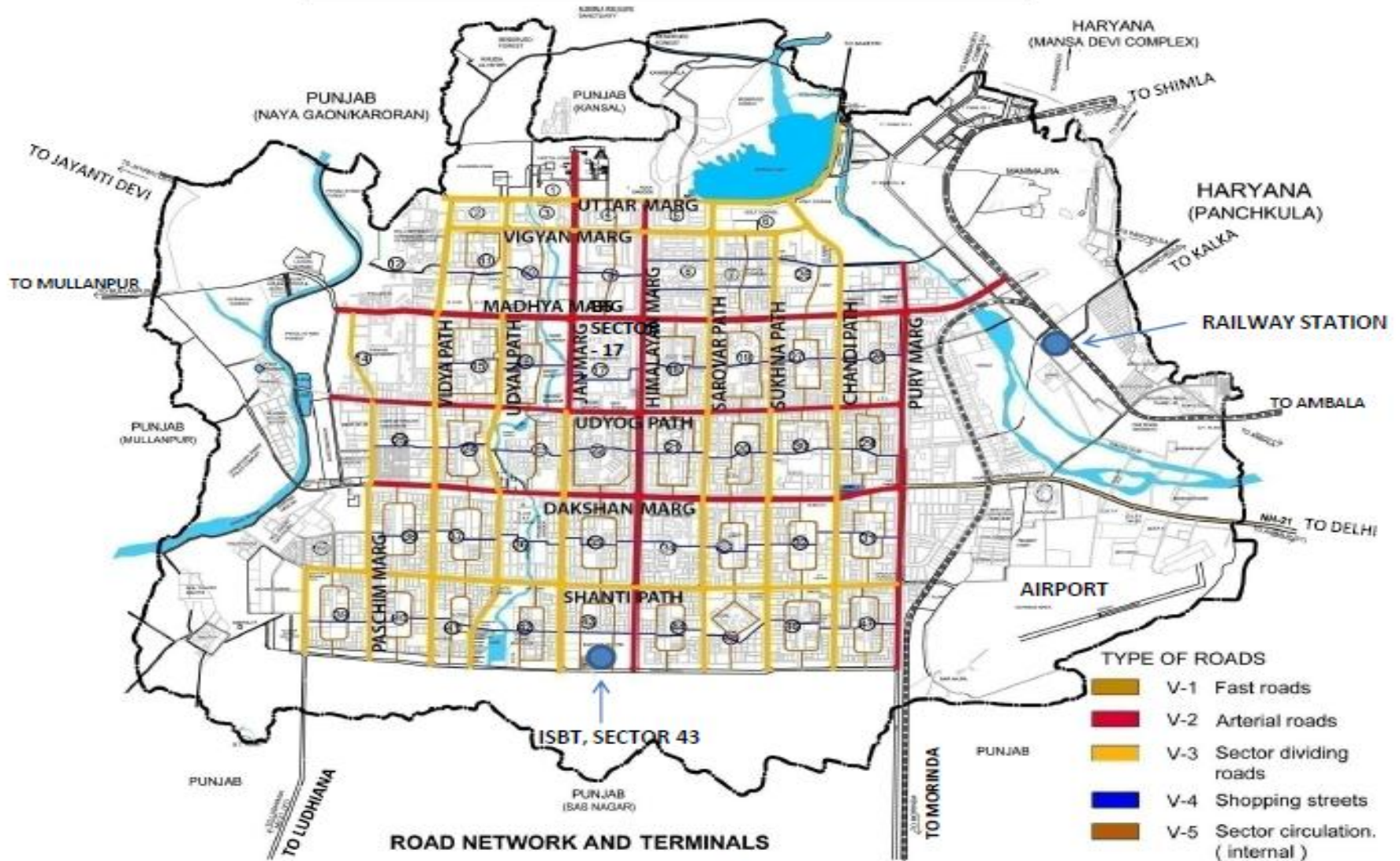
All V2 roads are called Margs (Avenue) and

V3 called Paths (Street).



Original Transportation Network

PLAN P1 : ORIGINAL CIRCULATION NETWORK AND TRANSPORTATION NODES

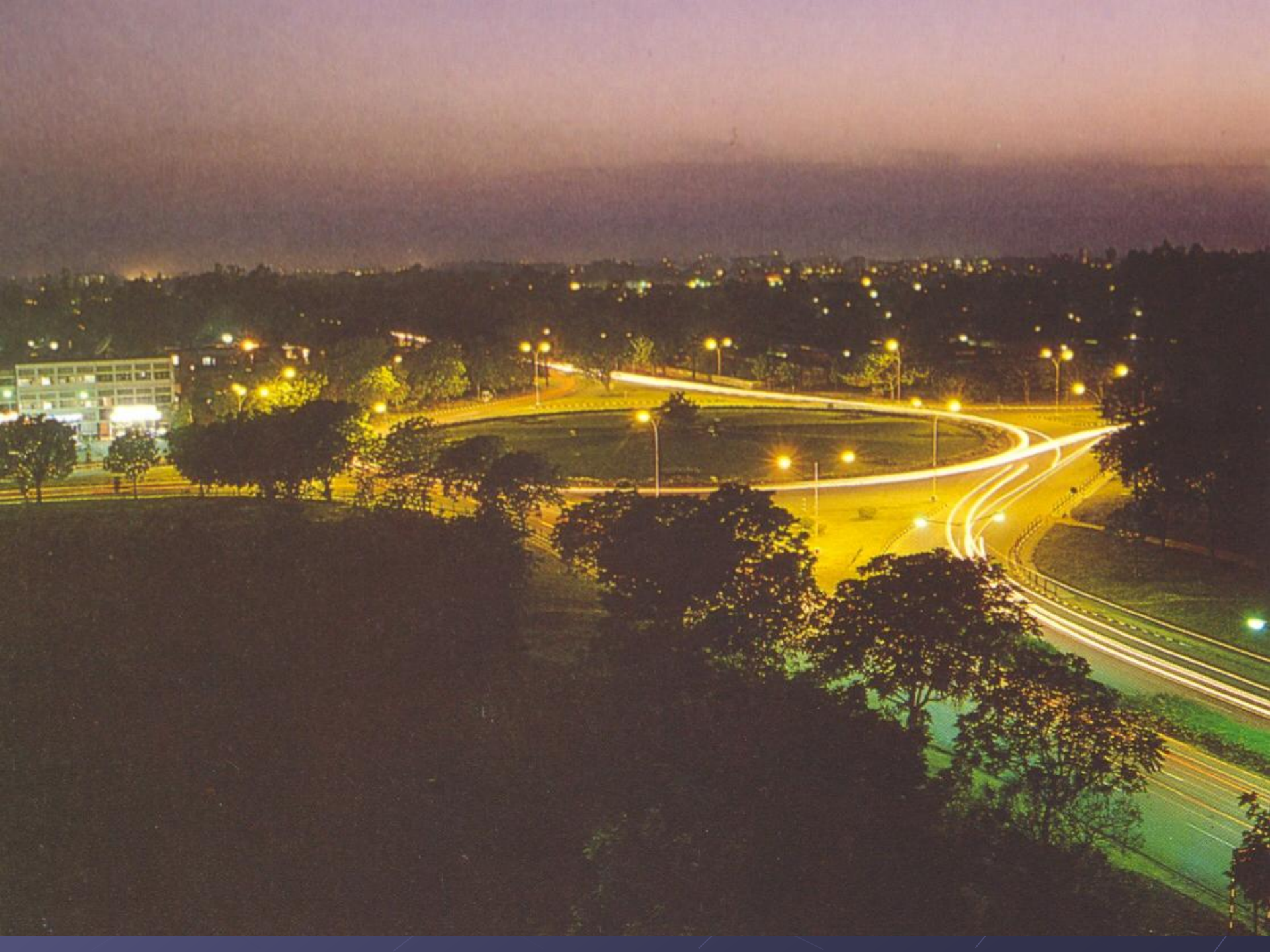


JAN MARG DURING THE DAY



A VIEW OF THE SHIVALIK HILLS AND JAN MARG LEADING TOWARDS CAPITOL COMPLEX





Chandigarh Traffic Rotaries





CHANDIGARH

The City Beautiful

Chandigarh Landscaping

- Chandigarh carefully planned, designed and planted city of India

- Blessed with sun, space & verdure as basic forces of town planning and Architecture

- -Chandigarh landscaping guided by:

- Marrying buildings with trees for harmony and
- linking man with nature.
- Linking mass of buildings and enhancing their architectural quality through textures, colours and contrast.
- Providing individuality to each element of city design.

- Bio-aesthetic planning based on selecting trees based on--colours, foliage, shape of crown, utilities aesthetic, architectural appeal and contrast

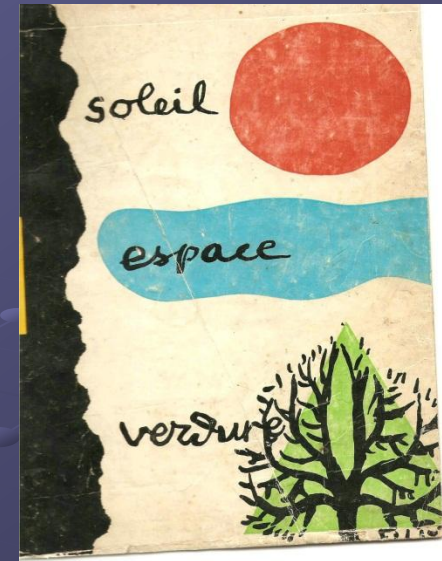
- Plan evolved based on planning principles adopted for city i.e.

- -- living,

- -- working ,

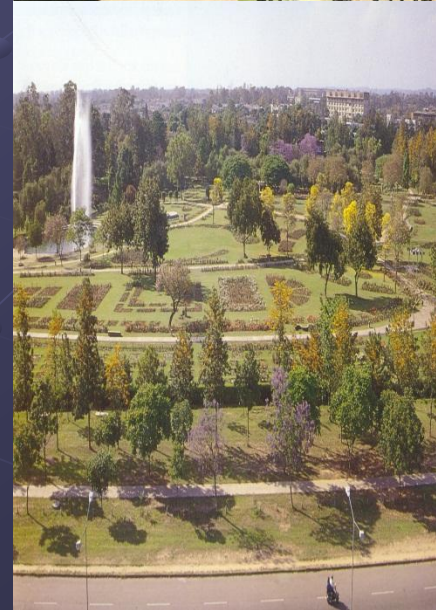
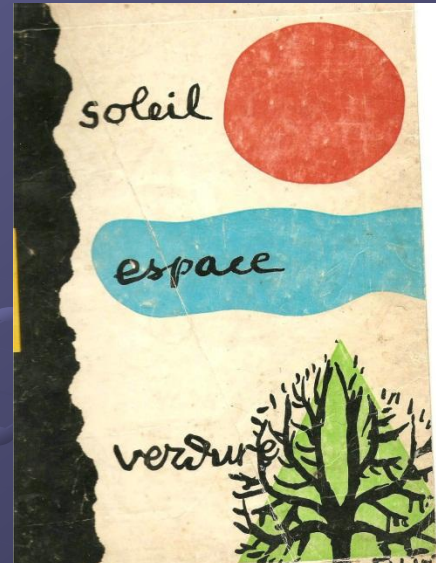
- --cobs and

- circulation.

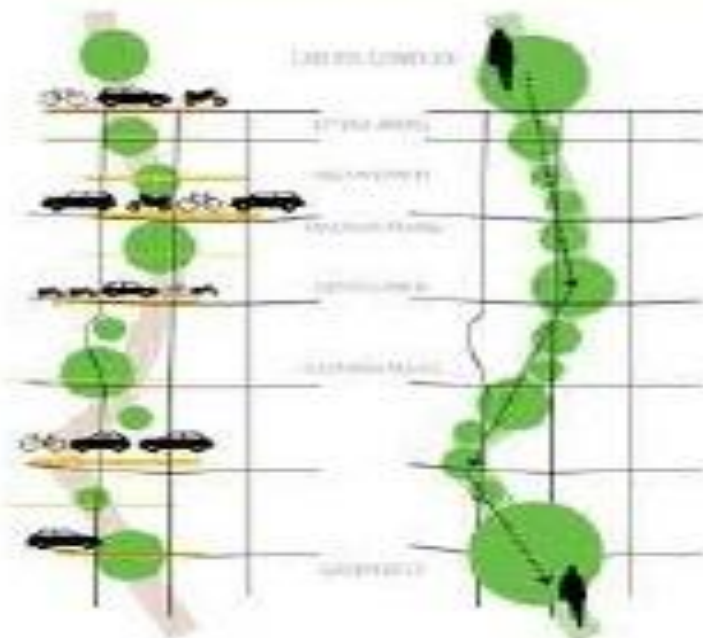


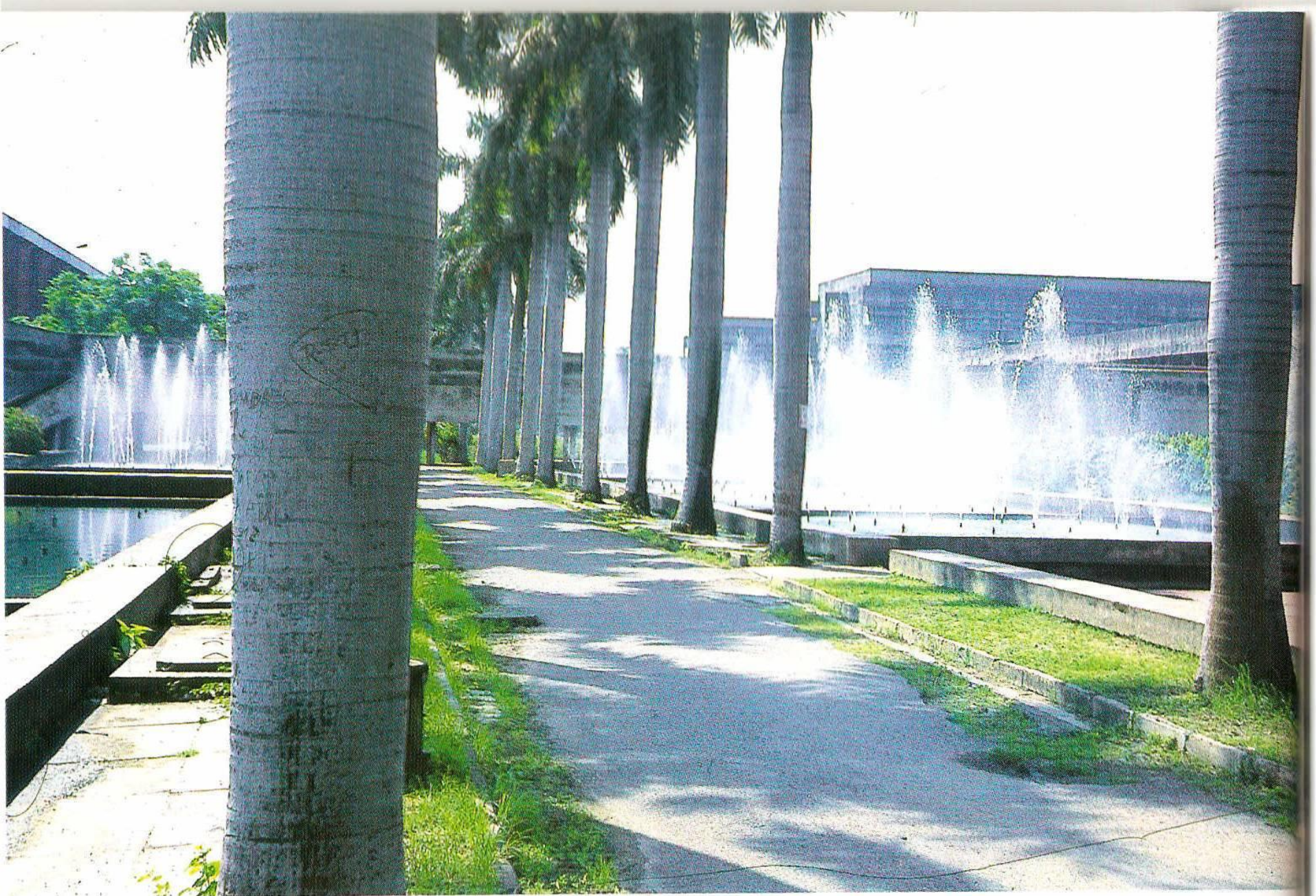
Chandigarh Landscaping

- Capitol/garden attached to governor's palace to have variety of evergreen trees with colours in all seasons.
 - All existing mango trees preserved.
 - Geometric hill to be planted with evergreen trees .
 - horizon to be shutoff with green wall of trees.
- V2 / V3 (vertical) to have evergreen trees with large umbrella like crown to form tunnel for safety from glare of the sun.
- V2 and V3 (horizontal) to have trees of light foliage
- Pedestrian pathway to have deciduous trees to allow sun in winter and provide shade in summer.
- V4- to have distinct character by planting trees with mixture of foliage /colour like yellow, red and blue for entire row.
- All open spaces within Sectors planned and landscaped
- Major gardens to be developed along the leisure valley besides zoological gardens and botanical gardens.



NETWORKING THE LEISURE VALLEY



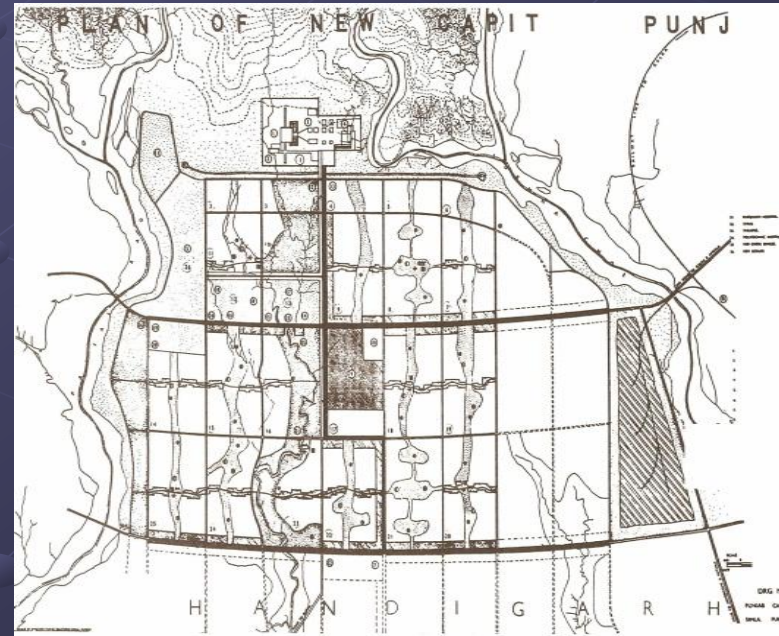


Industrial Area

Industrial Area

Industrial area

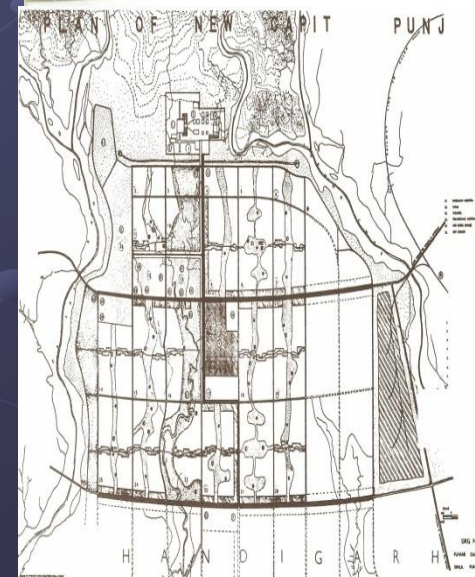
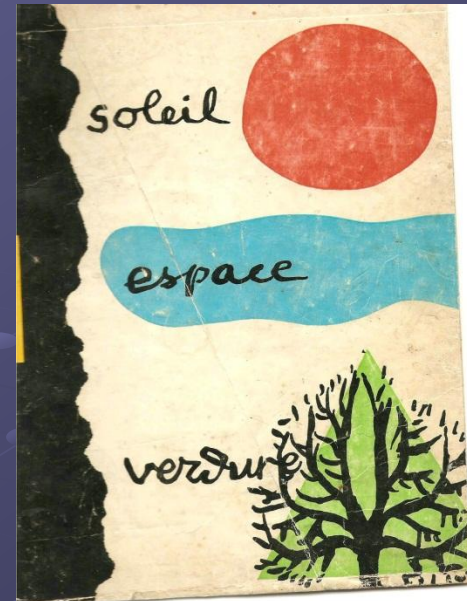
- Chandigarh conceived as administrative and not industrial city.
- 1262.78 Acs brought under industrial development in Phase-1&II
- 776.14 Acs of area on south-east periphery designated for industries located in close proximity of railway and highway connecting Delhi.
- For ensuring pollution free environments, no industry emitting smoke/pollution permitted.
- Industrial / residential area separated with a green belt of 150 meter width.
- Green belt planted with fruit bearing tree, to meet food related needs of residents.



Industrial Area

● Industrial area

- Additional 486.14 Acs developed as Phase-II , in continuation of Phase-I industrial Area.
- However, no green buffer left between residential / industrial area.
- Phase –III industrial Development proposed in an area of 153 Acs.
- I T park developed later in 352 Acs with proposed addition Of 270 Acs.
- Industrial Plots permitted to be converted into commercial use leading to number of shopping malls and hotels coming in the area.
- Industrial area present a picture of chaos and anarchy
- violation of basic principles of pure land use planning including problems of parking and infrastructure.



Development Controls

Development Controls

Developmental Controls

Two sets of controls made applicable

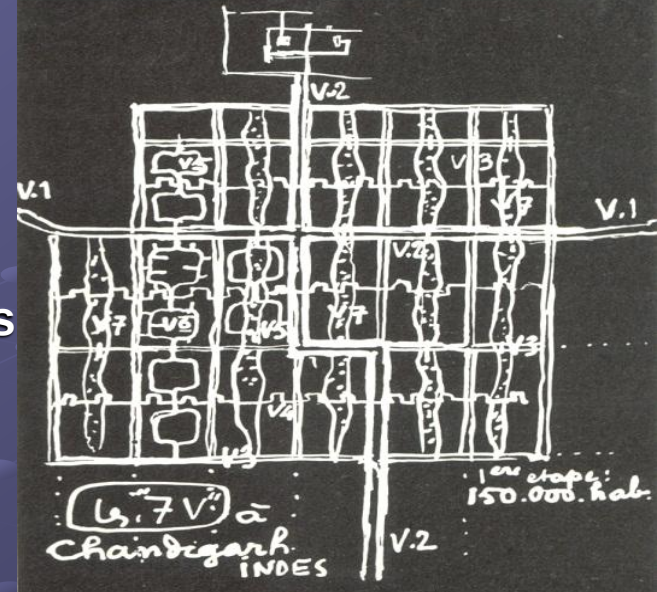
- Within city
- Outside city
- Entire City subjected to Developmental Controls
- City Zoned -- used/developed for specific purpose.

Built Environment under strict control comprising of :

- defining edges of buildings
- setbacks
- maximum height
- use of materials and
- Openings

Different controls applicable to different area depending upon importance.

All commercial areas under architectural control.



Development Controls

● Within City

- Zoning control
- Full architectural control
- System of construction & architectural treatment.
- Design control.
- Architectural controls
- Frame control.
- **Gates and Boundary walls.**
- **Advertisement control.**
- **Tree preservation order.**



● Outside city

- Periphery control



Development Controls – Within City

● Full architectural controls

- Applicable to all commercial buildings and
- Residential houses along shopping street V4

● Controls related to houses include

- Defining building lines
- Height of buildings
- Building materials

● For commercial area

- Complete standard design provided including detailed design.

● System of construction & architectural treatment.

- Applicable to all the buildings in city centre.
- All commercial buildings along V2 Avenues

● Control in city centre include

- A grid of columns
- Fixed floor height
- Shuttering pattern on concrete
- System of glazing/screen wall behind columns
- Interior left to discretion of owner.

● For buildings along V2 in addition to principles of city centre, the control includes façade treatment.



Development Controls

● Design control

- For special buildings in architectural controlled area, schematic design is prepared on the basis of which the architect evolves design in consultation with the Chief Architects.
- System applies to cinemas/petrol stations etc.

● Architectural controls

- Applicable to residential buildings along the important areas like Uttar Marg and along the leisure valley.
- Design is to be prepared by a qualified Architect in consultation with Chief Architect to maintain architectural standard in the area.

● Frame controls

- Most important control followed in residential plots upto 250 sq. yards.
- Bulk of houses in smaller category of 250 sq. yards and below.
- Followed where the housing is to be terraced housing.
- Introduced due to lack of control which led to extremely poor/substandard kind of architects.
- No prediction of what neighbour would do.
- Achieving good street picture became impossible.

● Control comprises of

- Fixing the extent and height of the party walls.
- A top connecting course making the frame.
- Standards size of doors and windows.
- Harmony provided by frame and variety by the individual treatment of building.



ARCHITECTURAL CONTROLS COMMERCIAL – SECTOR 17



ARCHITECTURAL CONTROLS COMMERCIAL – V4



ZONING CONTROL RESIDENTIAL



One kanal houses in phase I of the city with fixed set backs and height regulations. The size and design of



Private houses in phase I of the city under full architectural control.

FRAME CONTROL RESIDENTIAL



A street picture of 10-Marla houses under frame control.



Rear view of 10-marla houses with standard design of brick jallis (New control has relaxed this control)

FRAME CONTROL RESIDENTIAL



Development Controls

Gates and Boundary walls

- All gates and building walls to conform to standard designs adding unity to street picture.

Advertisement control.

- Control to take care of visual pollution in city
- To regulate display of advertisements on building and in city.
- To specify size, space, location and kind of display to be used in advertisement.

Tree preservation order

- All existing trees to be treated as preserved.
- No removal of trees allowed without permission.
- Sanction granted for removal in rare cases of extreme hardship
- New trees to be planted in lieu of tree removed.
- No hopping, lopping and chopping of trees allowed without permission.



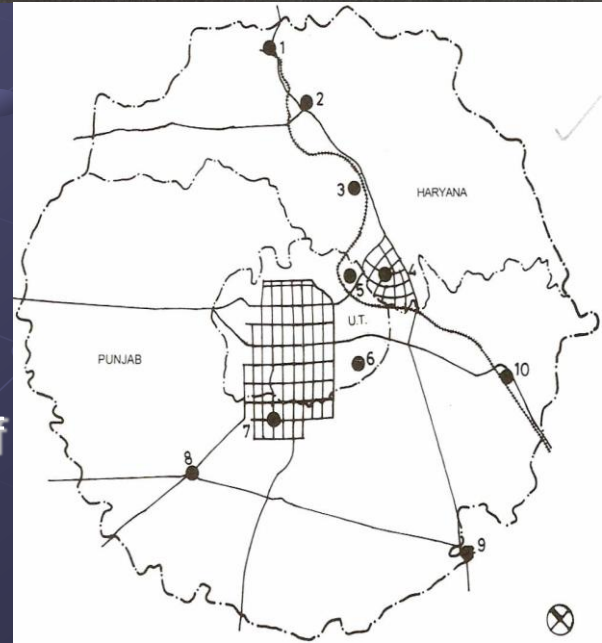
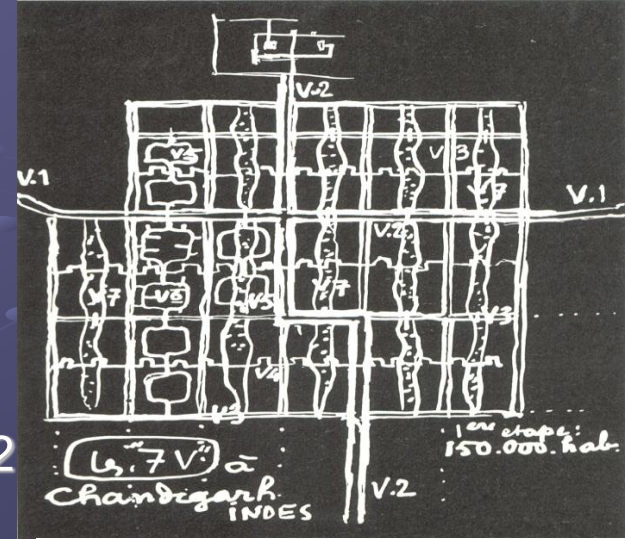
Developmental Controls – Outside City

Periphery

- City and periphery two distinct related but inter-dependent entities, with
 - different functions to perform
 - city providing services and periphery providing daily needs.
 - their functions must not inter-change
 - attempt to interchange functions would lead to anarchy.

The Punjab New Capital (Periphery) Control Act, 1952 aims at:

- Protecting Chandigarh against haphazard, unplanned development.
 - providing area for future expansion
 - eliminating growth of slums
 - meeting daily needs of the residents.
 - preserving the character of the area.
 - Harmonizing development of the city and periphery.
- 8 km belt around Chandigarh reserved as periphery
 - Extended to 16 km in 1962 considering the pressure of development.



PERIPHERY CONTROL



The Punjab New Capital (Periphery) Control Act, 1952 aims at:
providing area for future expansion

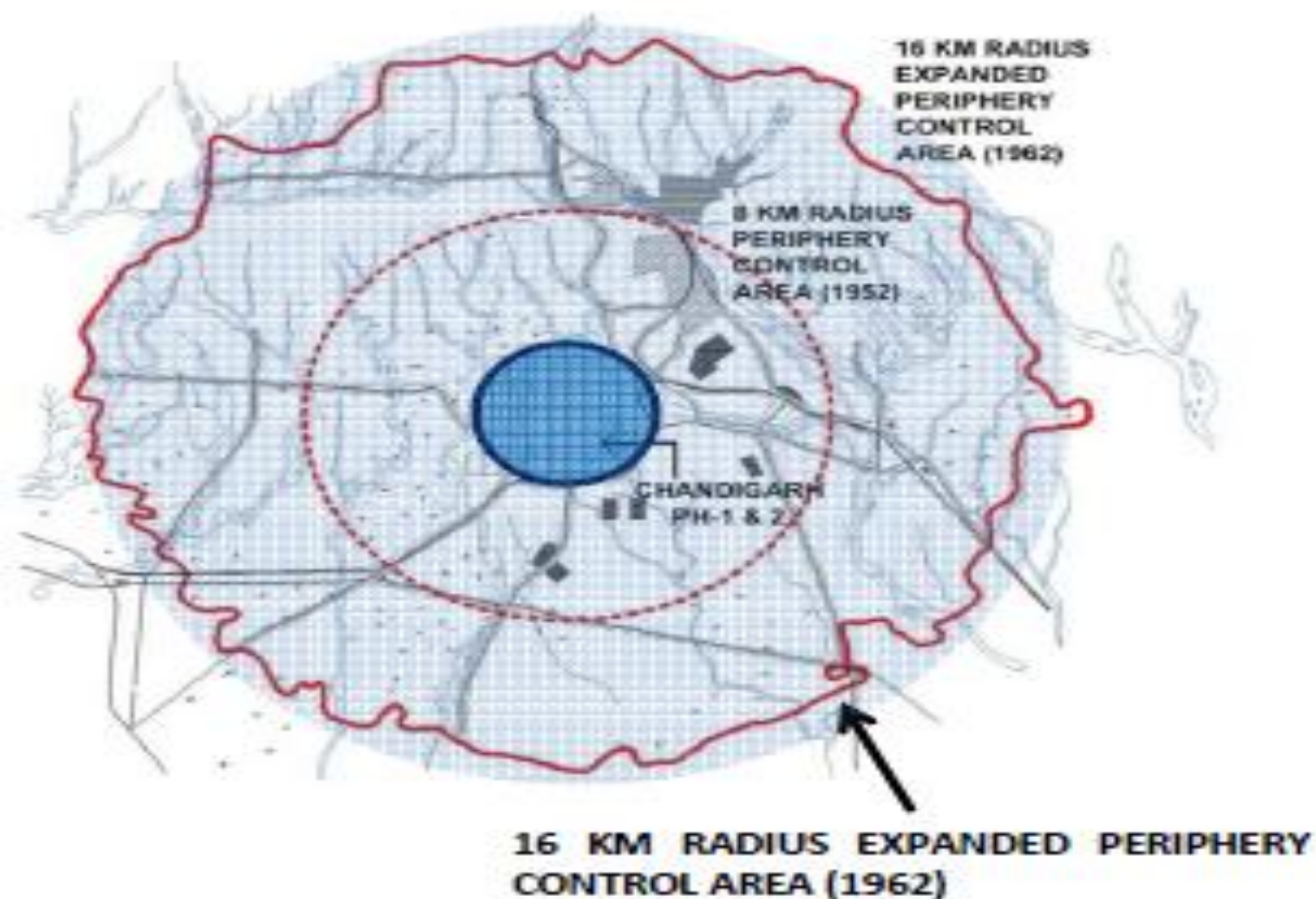
eliminating growth of slums

meeting daily needs of the residents.

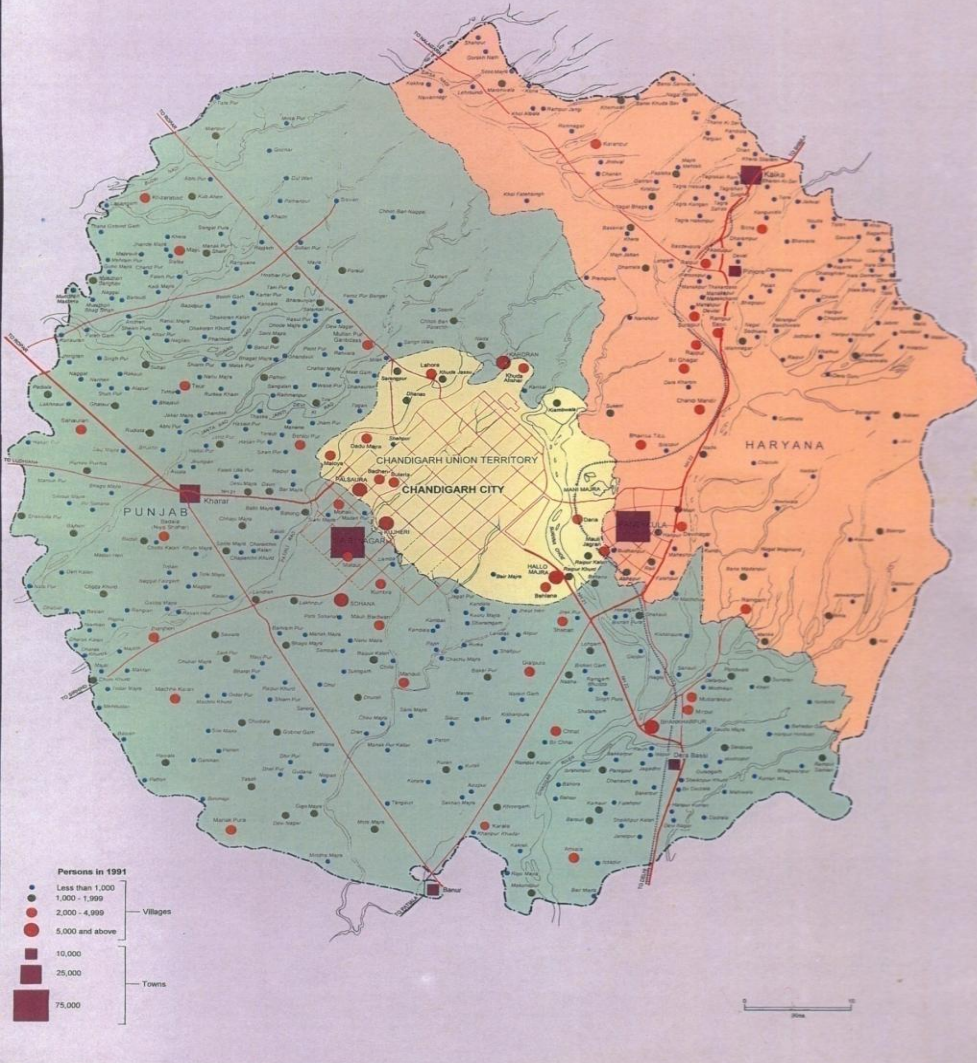
preserving the character of the area.

Harmonizing development of the city and periphery.

MAP 5 CREATION OF 16 KM EXPANDED PERIPHERY CONTROL AREA



CHANDIGARH PERIPHERY ZONE



Periphery Control Act of 1952 was established to regulate development within a 16 Km limit beyond the city.

As per this act,

- No person shall erect any building or
- lay out any means of access to a road,
- in the controlled area
- except such building
- as is required for purposes subservient to
- agriculture, poultry, dairy, etc.

Post 1966- Reorganization of Punjab-
Periphery area around 1430 sq. km.
largest part with state of Punjab (76%)
Haryana 21%
Chandigarh left with 3%,

SEWER MANHOLE



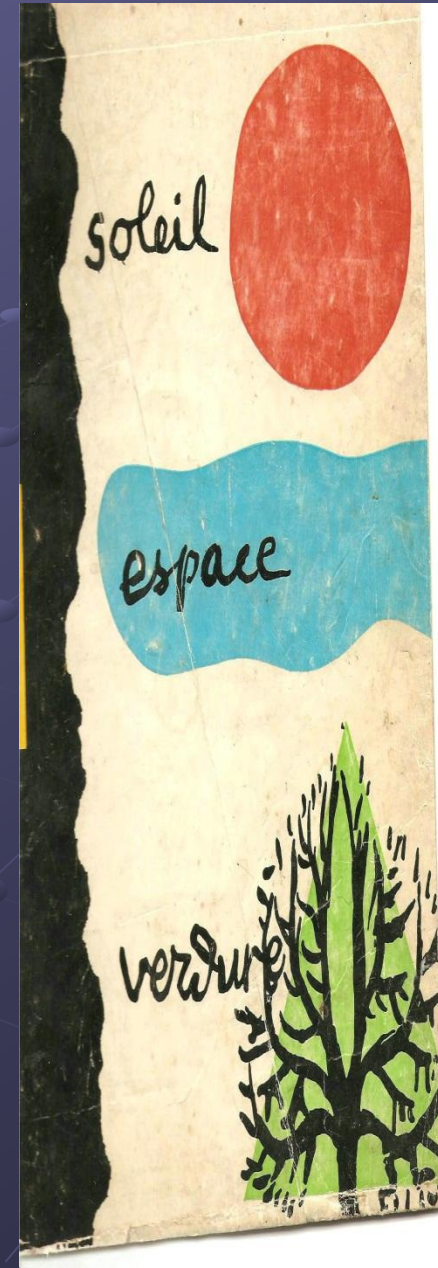
The city has nearly 2,000 cast iron manhole covers bearing a
architect Le Corbusier



EDICT OF CHANDIGARH

EDICT OF CHANDIGARH

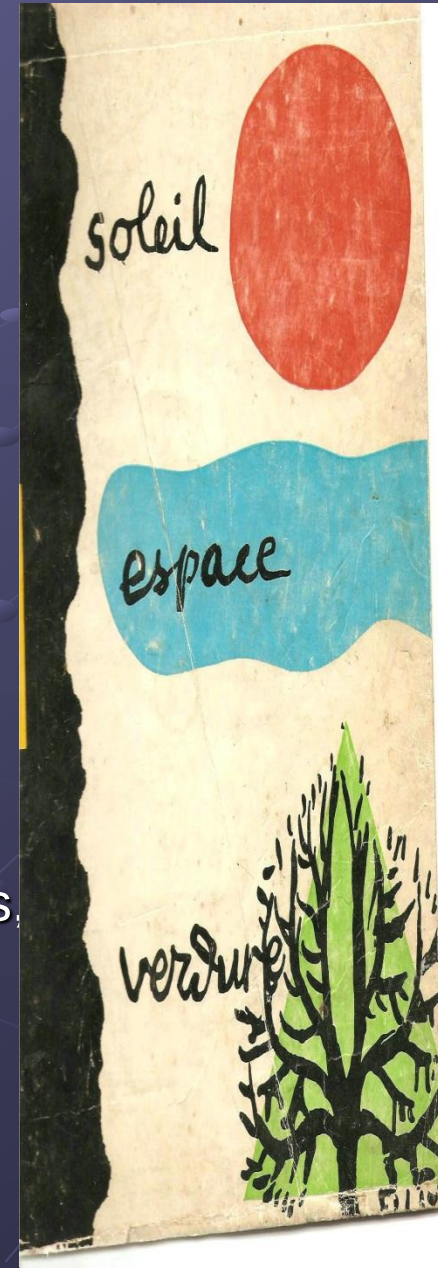
- First City to have Edict in the country
- The object of this edict is to
 - Enlighten the present and future citizens of Chandigarh
 - about the basic concepts of planning of the city
 - so that they become its guardians and
 - save it from whims of individuals.
- This edict sets out the following basic ideas underlying the planning of the city.
- Human scale
 - The city of Chandigarh is planned to human scale.
 - It puts us in touch with the infinite cosmos and nature.
 - It provides us with places and buildings for all human activities by which the citizens can live a full and harmonious life.
 - Here the radiance of nature and heart are within our reach.



EDICT OF CHANDIGARH

Sectors

- This city is composed of sectors.
 - Each sector is 800 meters by 1,200 meters,
 - enclosed by roads allocated to fast mechanised transport and
 - sealed to direct access from the houses.
 - Each sector caters to the daily needs of its inhabitants,
 - which vary from 5,000 to 25,000 and
 - has a green strip oriented longitudinally stretching centrally along the sector in the direction of the mountains.
 - The green strip should stay uninterrupted and
 - accommodate schools, sports fields, walkways and recreational facilities for the sector
- Vehicular traffic is completely forbidden in the green strips
- where tranquility shall reign and
 - the curse of noise shall not penetrate.



EDICT OF CHANDIGARH

ROADS:

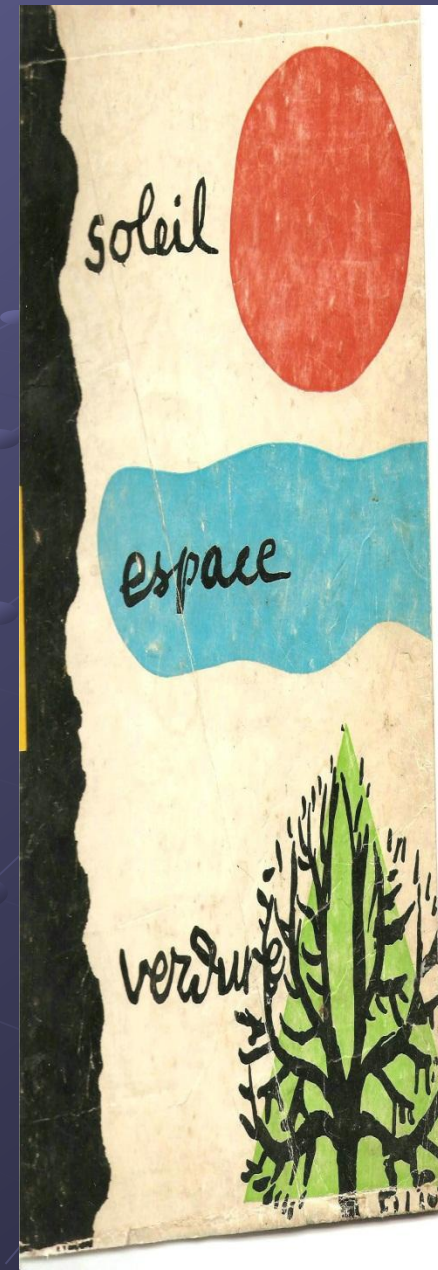
- The roads of the city are classified into seven categories, known as the system of 7 Vs,
- V-1 -- Fast roads connecting Chandigarh to other towns;
- V-2 -- arterial roads;
- V-3 -- Fast vehicular roads;
- V-4 -- Meandering shopping streets;
- V-5 -- Sector circulation roads;
- V-6 -- Access roads to houses;
- V-7 -- footpaths and cycle tracks

Buses will ply only on V-1, V-2, V-3 and V-4 roads.

A wall shall seal the V-3 roads from the sectors.

Areas of Special Architectural Interest

- Certain areas of Chandigarh are of special architectural interest.
- Where harmonized and unified construction of buildings is aimed at,
- absolute architectural and zoning control should remain operative.



EDICT OF CHANDIGARH

● Along V-2 Central, dual carriageways, Madhya Marg and Uttar Marg, where

- skyline,
- heights,
- character and
- architecture of buildings as planned
- shall not be altered.

● Along V-2 beyond dual carriageway areas are

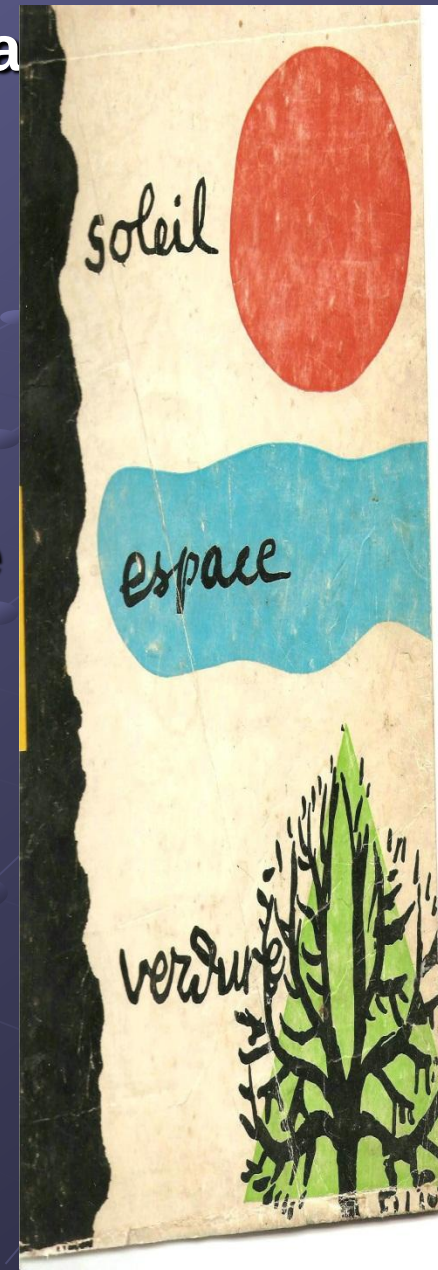
- reserved for cultural institutions only and
- shall never have any residential buildings

● No building shall be constructed north of the Capitol Complex

● CITY CENTRE

The central plaza in Sector 17 was designed

- as "Pedestrian's Paradise".
- No vehicular traffic will be permitted in the plaza.



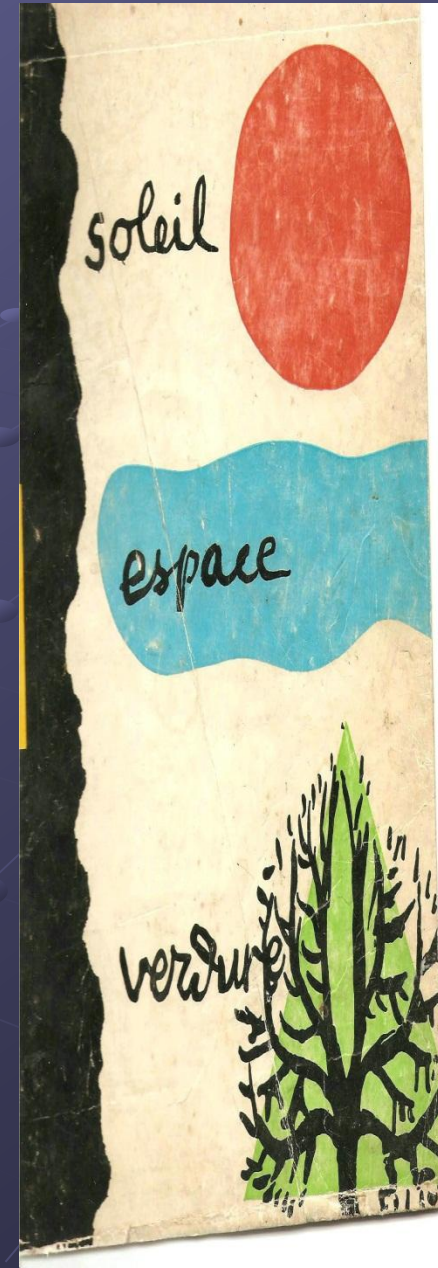
EDICT OF CHANDIGARH

● Industrial area

- Only such industry as
- is powered by electricity
- would be permitted in the Industrial Area,
- so that atmosphere is saved from pollution.

● The Lake

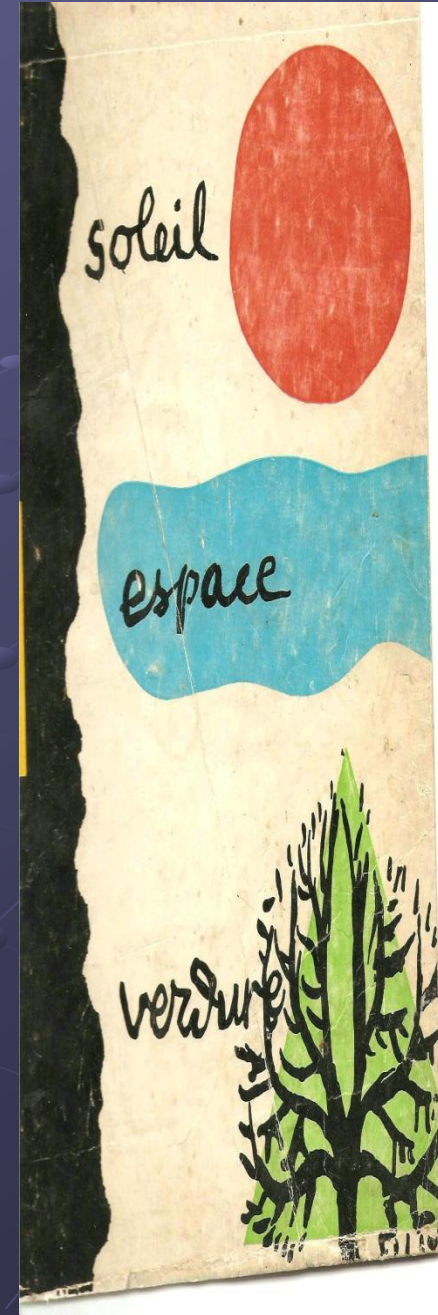
- The Lake is a gift
- of the creators of Chandigarh
- to the citizens
- to be at one with the lake and its environments and
- its tranquility shall be guaranteed by banning noises.



EDICT OF CHANDIGARH

● LANDSCAPING

- The landscaping of this city is based on
- careful observation of the vegetation of India.
- Selected ornamental trees, shrubs and climbers have been planted
- according to colour schemes to beautify it.
- In future planting and replacements, these principles must be kept in view.
- There should be no haphazard replacements,
- so that avenues retain their harmony and beauty.
- The Leisure Valley, the Rajendra Park and other parks shall be developed as parks only and
- no building other than already planned shall be permitted.



EDICT OF CHANDIGARH

● No Personal Statues Shall Be Erected

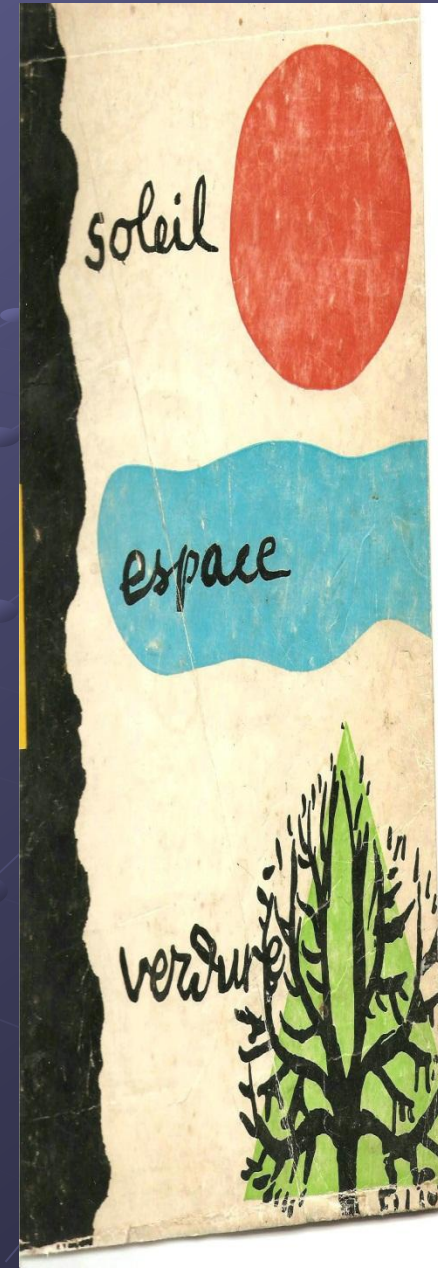
- The age of personal statues is gone.
- No personal statues shall be erected in the city or parks of Chandigarh.
- The city is planned to breathe
- the new sublimated spirit of art.
- Commemoration of persons shall be confined to suitably placed bronze plaques.

● Truthfulness of Building Materials To Be Maintained:

- The truthfulness of
- materials of constructions,
- concrete, bricks and stone,
- shall be maintained in all buildings constructed or
- to be constructed.

● The seed of Chandigarh is well sown.

● It is for the citizens to see that the tree flourishes.

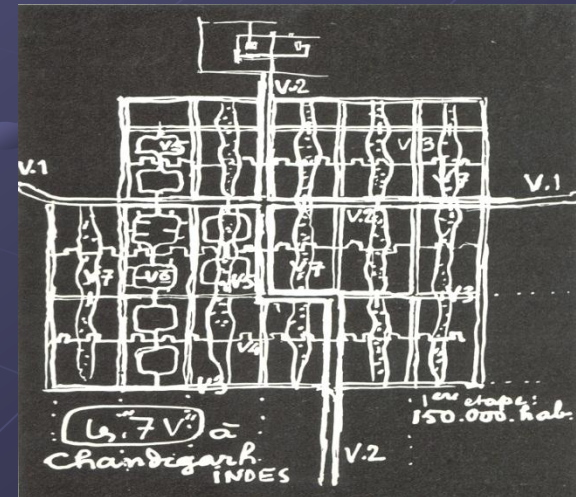


Crisis of Development- Issues

CHANDIGARH CITY IN TRANSITION

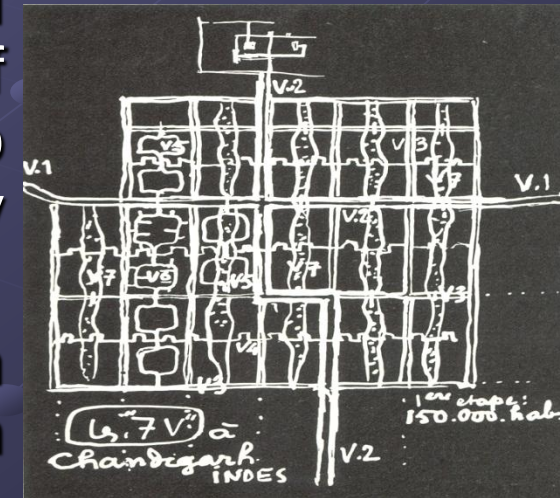
72 years later, as Chandigarh expands inwards / onwards, horizontally/vertically, city faces numerous challenges due to:

- Change in administrative status.
- Enormous population growth.
- Proliferation of slums.
- Rapid growth of informal markets.
- High degree of Traffic congestion.
- Growth of urban/Rural villages.
- Changing character of city as Regional Centre.
- Change of land use-Industrial to Commercial
- Changing context of the periphery.



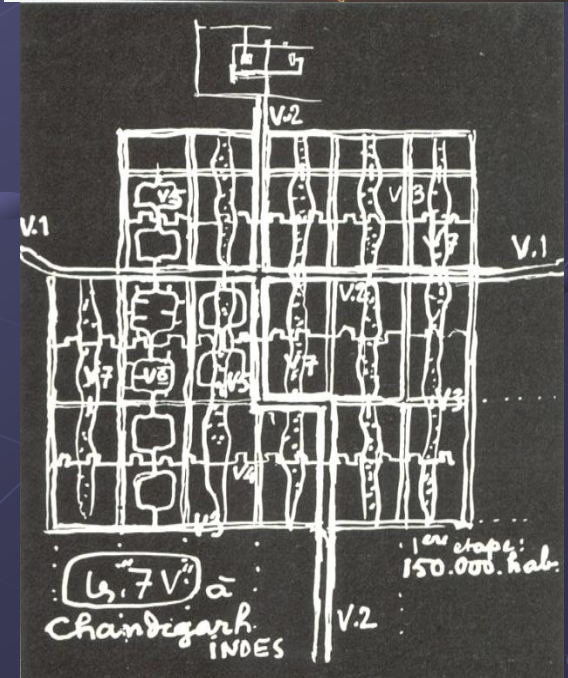
CHANGED STATUS OF CITY

- Chandigarh originally conceived as a capital of state of Punjab.
 - In 1966 post re-organization, city became union territory and also capital of states of Punjab & Haryana.
 - As a Union Territory Chandigarh headed by Chief Administrator.
 - In 1984, disturbed condition placed Chandigarh under the Governor of Punjab as Administrator with advisor to administrator given the charge to run city on day to day basis
1. In 1994, Municipal Corporation Chandigarh setup under 74th Constitutional Amendment Act 1992.



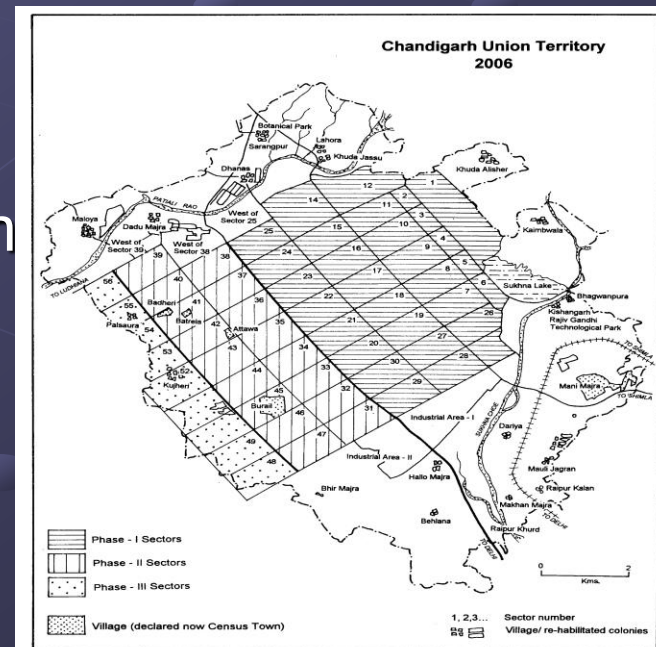
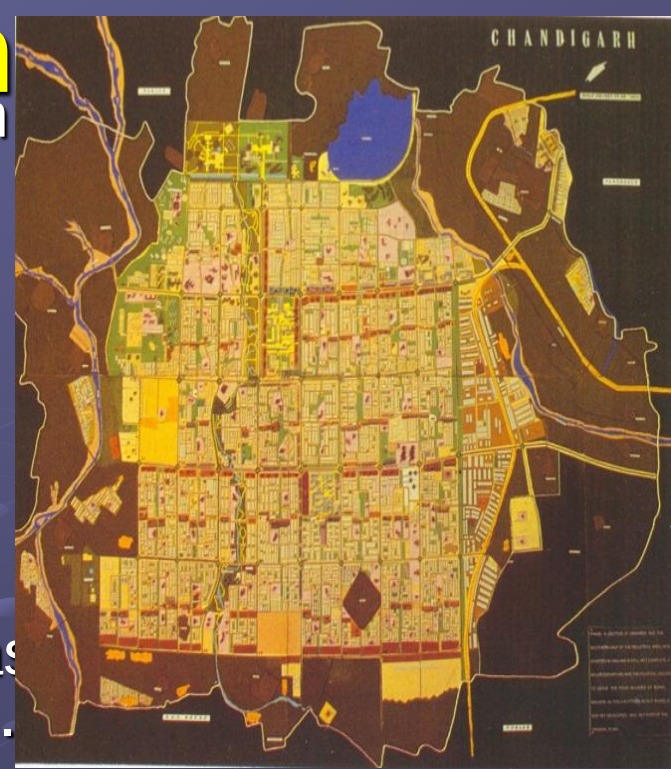
CHANGED STATUS OF CITY

- Municipal Corporation looks after maintenance/upkeep of roads, open spaces, w/s, sewerage, swd, development in surrounding urban settlements.
- Duality of control caused numerous problems, lowering standard of maintenance & upkeep and development
- With three government located in , number of government employees have increased manifold.
- Population and physical growth became much faster.
- Large scale migration witnessed, mostly in the lower income categories.
- Demand on city infrastructure increased manifold-adversely impacting quality of life.
- City continues under development pressure/ impact of the changed administrative status.



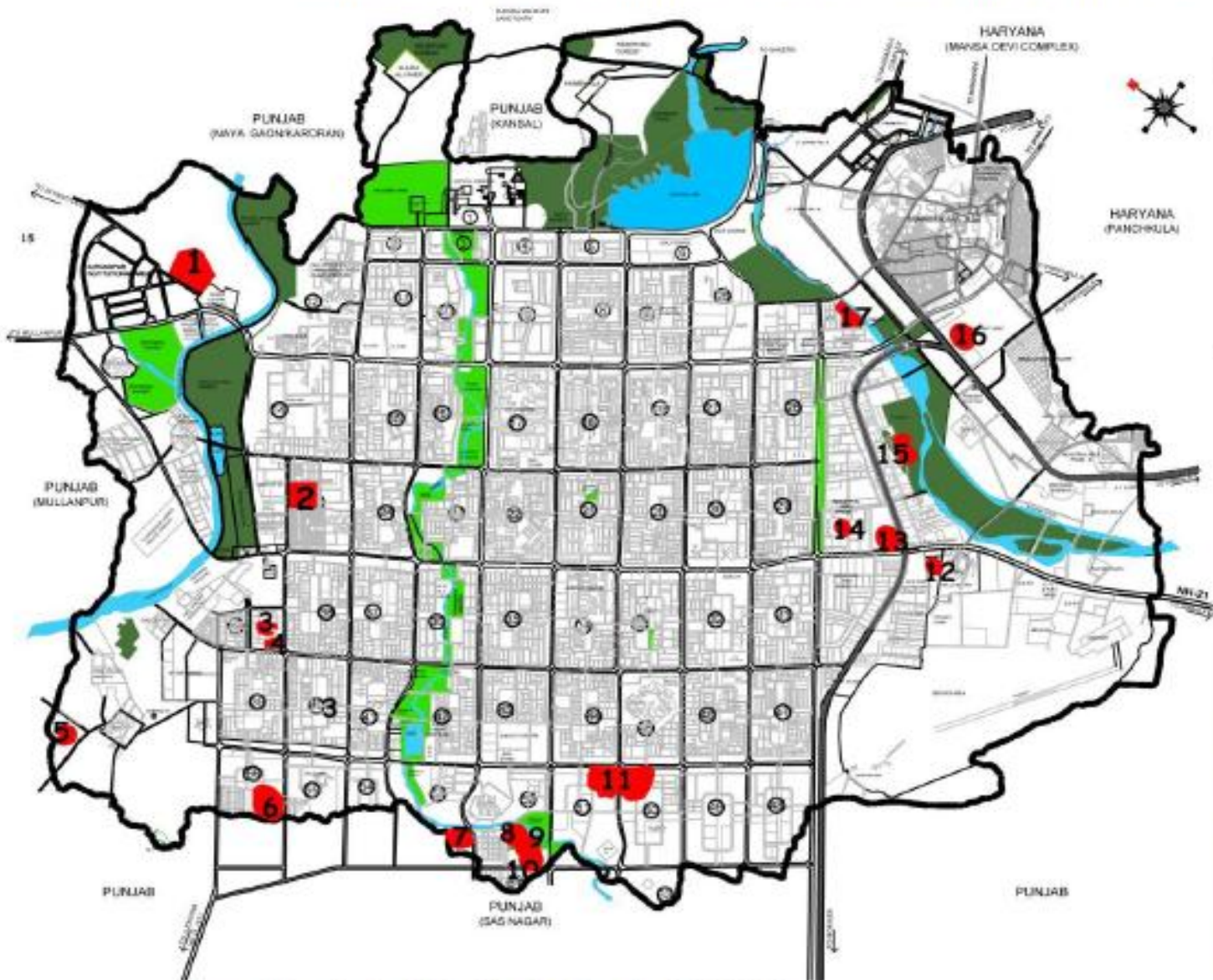
Population

- Initial fear of ever reaching its population target- city achieved its planned population of 0.5m in 1991 within four decades.
- Chandigarh UT recorded a population of 10,54,686 in 2011--9,00,635 in 2001.
- Chandigarh UT now a conglomerate of 2 urban centres and 22 urban villages.
- High population density of 9252 in 2011 as against 7900 persons per sq. km in 2001.
- Rural areas - witnessed faster growth rate.
- Now entire 114 sqkm area made urban
- By 2021, Chandigarh projected population --1.35-1.45 million & 1.5-1.6 m in 2031
- need to address dimension of demography-- in future planning related to-- Housing, Services, Traffic and Employment - for retaining its basic character.



Slums

PLAN H6.3: LOCATION OF UNAUTHORISED COLONIES AS PER BIOMETRIC SURVEY OF 2006



UN-AUTHORISED COLONIES

S. NO.	DESCRIPTION
1	KALYAN COLONY
2	KUMHAR COLONY
3	SHAHPUR COLONY
4	RAJIV COLONY
5	GURU SAGAR COLONY
6	L.B.S. COLONY
7	NEHRU COLONY
8	PANDIT COLONY
9	KULDIP COLONY
10	MAZDOOR COLONY
11	COLONY NO. 5
12	AMBEDKAR COLONY
13	KABARI COLONY
14	SANJAY COLONY
15	COLONY NO. 4
16	S.B.S. COLONY
17	MADRASI COLONY
18	JANTA COLONY

Due to pro-active steps taken by the Chandigarh Administration, new rehabilitation colonies have been constructed as per Rehabilitation Plan. Some of the aforesaid colonies have thus been rehabilitated.

Source – Department of Urban Planning, Chandigarh Administration

SLUMS

- Last 7 decades- have witnessed enormous population growth not only in planned sector but also as unplanned settlements.
- Nearly 1/8th of city population lives in unplanned settlements.
- Most of people-- migrants, with poor economic conditions.
- During survey made in 2006 –
 - total slum population placed at 2,26,230 persons
 - out of which 1,17,744 resettled in 19 colonies
- Still 18 unauthorised colonies with 23,974 household exist in the city occupying prime land and creating adverse environmental conditions.
- These colonies lack basic amenities impacting adversely quality of life.
- All these colonies are located on Government land.















Commercial slums (informal market)

- Commercial slums- another major phenomenon of city growth and development .

- Lack of commercial space and late development of shopping areas led to mushroom growth of mobile / shanty shops selling day to day merchandise.

- Policy of disposal of commercial sites through auction lead to high land prices, eliminating small traders in the process.

- City had no provision for petty traders which lead to mushrooming of temporary shops.

- Lot of open spaces along commercial belt and residential sectors became easy target for encroachment leading to emergence of informal markets.

- Despite construction and allotting more than 3000 booths in day markets, pending demand is over 4000.



Commercial slums (informal market)

- Two sets of market i.e. planned / informal, present contrasting pictures of chaos in parking and sale of merchandise.
- Day markets more popular due to competitive pricing of goods.
- With certain markets becoming famous (sector 19 & 22), day markets are gaining currency with traders - more such illegal shops coming up in city
- City needs to overcome this problem by allocating
 - larger commercial areas component
 - providing more smaller shops.accommodating large number of traders.
 - Policy of disposal of commercial space need review/rationalization to control land prices.









Commercial Space in Sector 22





BLESSINGS
18 JUNE 2017

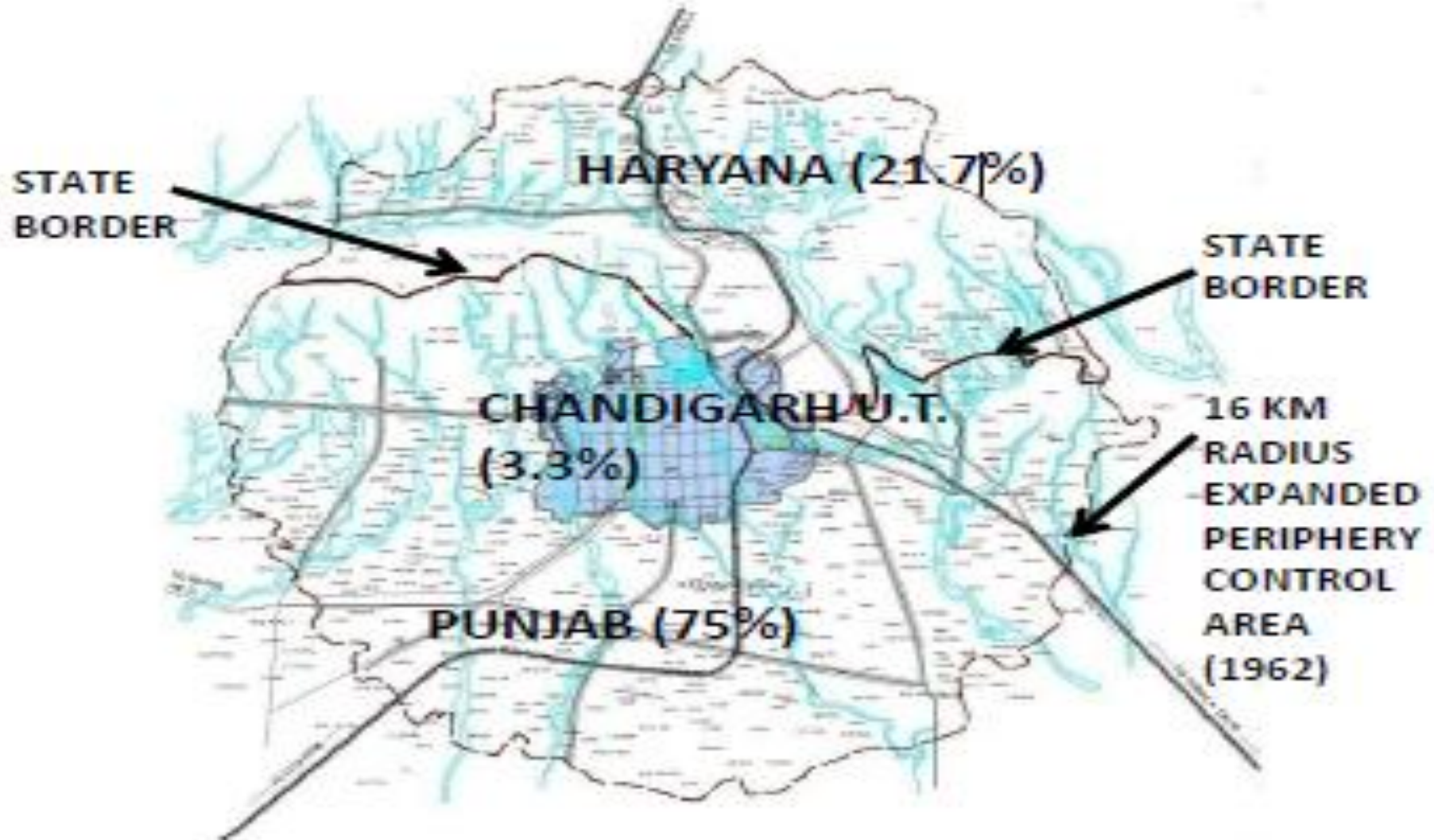
Ⓐ THE AROMA *Classic*

Informal Market in a Formal Commercial Space- sector 22



CHANGING CONTEXT OF PERIPHERY

MAP 6 DISTRIBUTION OF 16 KM PERIPHERY CONTROL AREA BETWEEN PUNJAB, HARYANA & UT OF CHANDIGARH



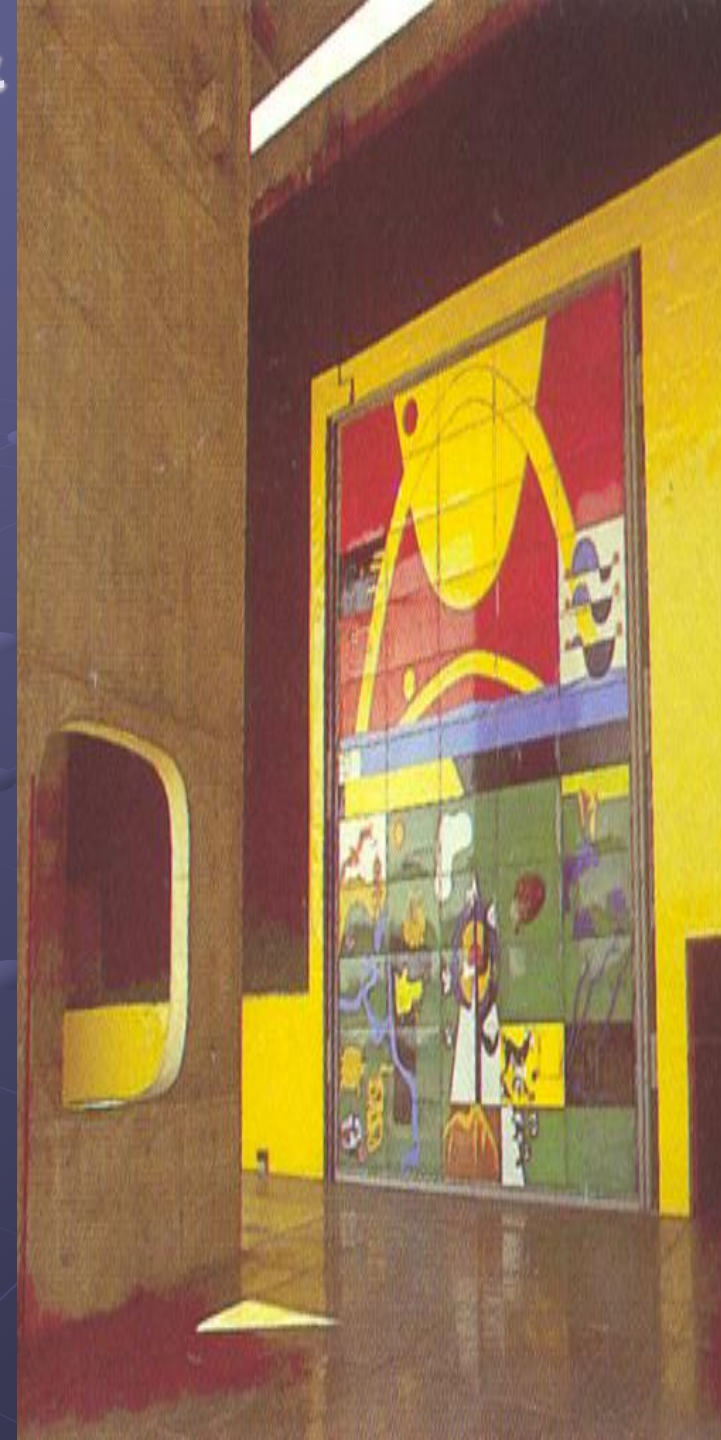
Periphery-Approach & Development

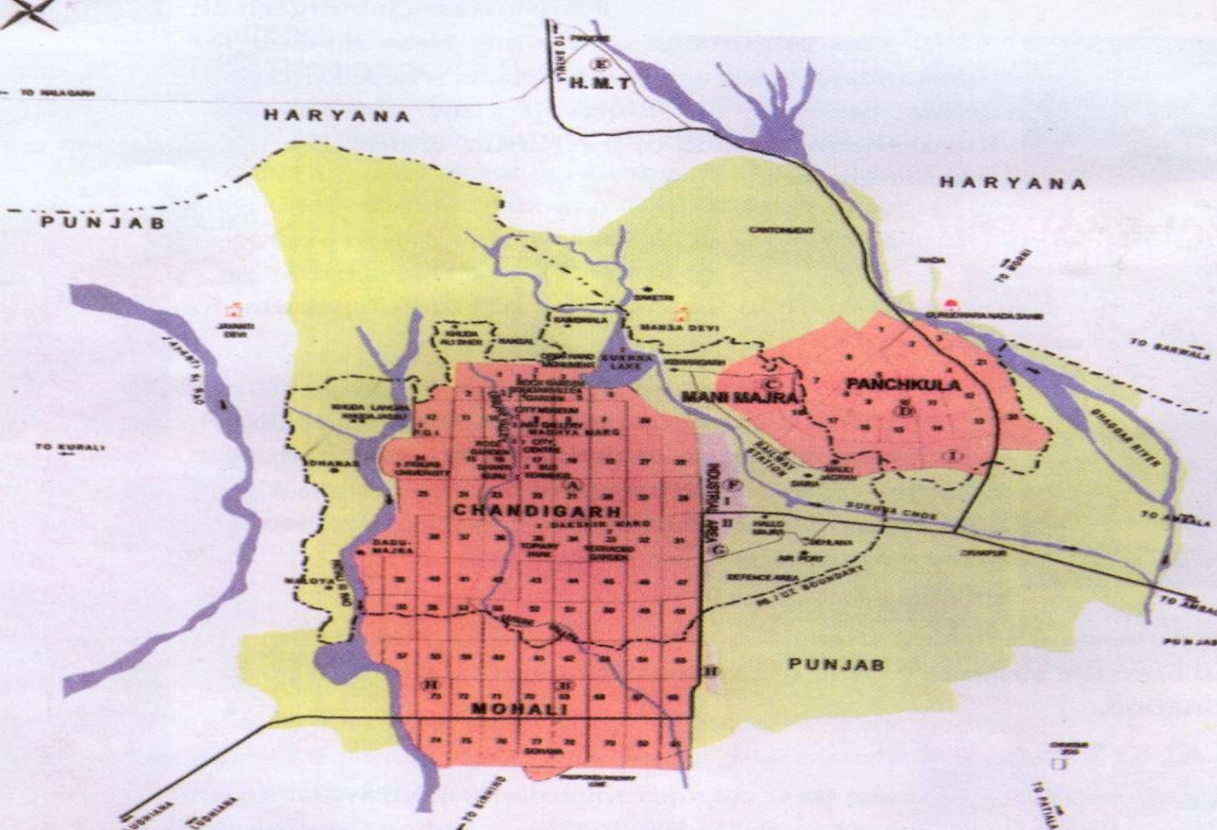
- City and periphery went well till 1966
 - growth of population was slow
 - developmental pressure had not built up.
 - The existence of a single agency - **Capital Project**
- The development plan prepared for the periphery provided for
 - freezing the area against urbanization; and
 - maintaining its character - essentially agricultural.
- Role and functions of city and periphery clearly defined-
 - the city providing basic/higher order services, infrastructures, and
 - the periphery performing the role of a sustainer and provider daily needs
- **ii) Post-Reorganization Scenario.**
- Reorganization of Punjab in 1966 marks watershed in city development.
- It changed the context of periphery
 - sub-division into three parts
 - largest part going to Punjab (76%) and
 - Haryana and Chandigarh left only with 21% and 3%, of the original area of around 1430 sq. km.



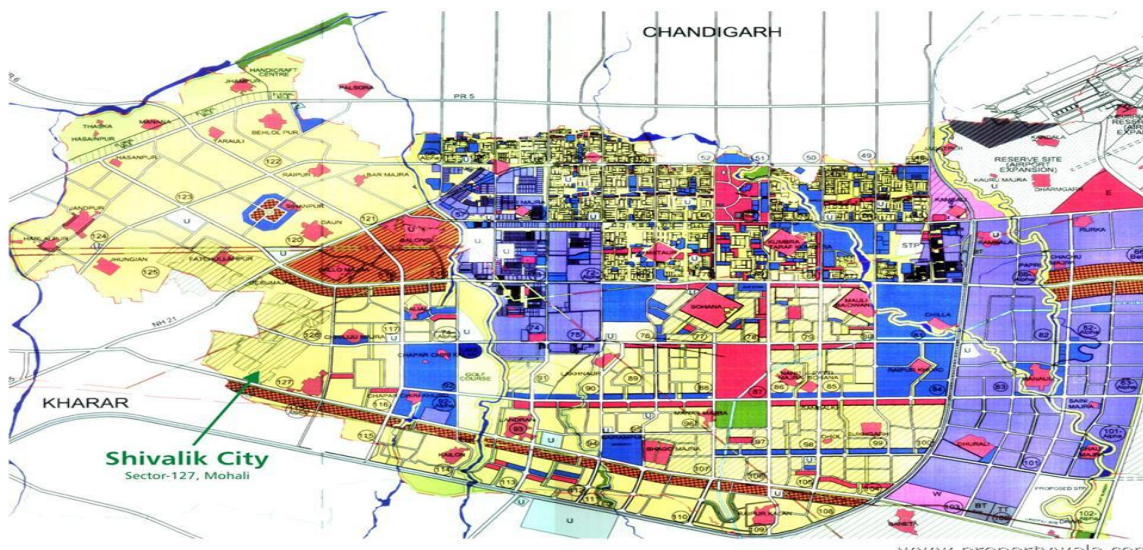
Periphery-Approach & Development

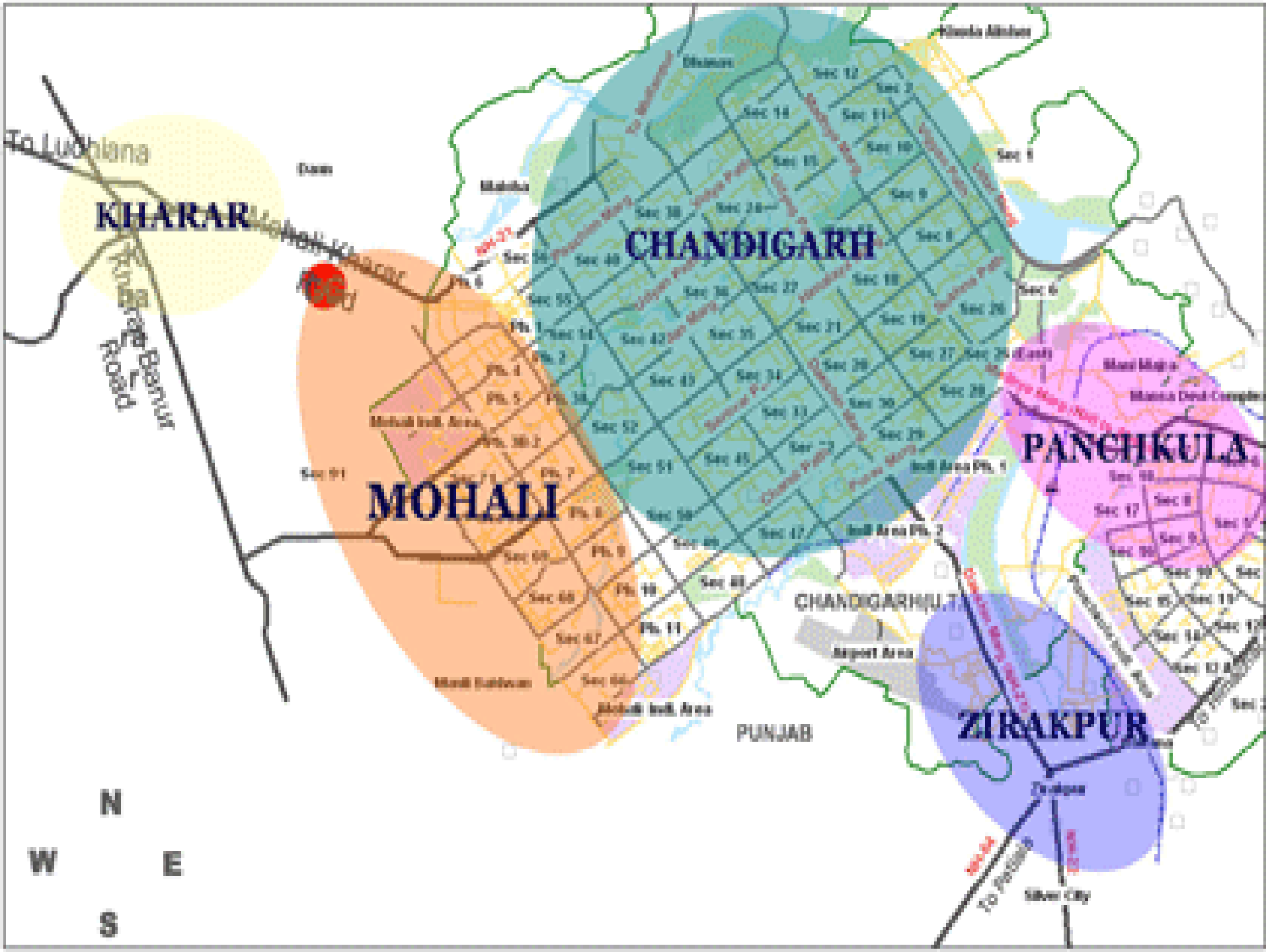
- States of Punjab and Haryana used periphery by
 - creating S.A.S. Nagar (Mohali) and Panchkula,
 - defeating the main objective of periphery.
- Since the establishment of S.A.S. Nagar (Mohali) and Panchkula from 1967, periphery never rested
- peripheral area witnessed
 - --rapid growth and development,
 - -- faster than the core cities of
 - --Chandigarh, Panchkula and Mohali.
- By 2011 ,
- S.A.S. Nagar attained population of 1.76 lakh and
- Panchkula 2,11,355.
- S.A.S. Nagar grown by more than 50% of Chandigarh size.
- Panchkula has more than doubled.





- States of Punjab and Haryana used periphery by creating S.A.S. Nagar (Mohali) and Panchkula, defeating the main objective of periphery
- Since the establishment of S.A.S. Nagar (Mohali) and Panchkula from 1967, periphery never rested and
- underwent enormous development, both planned and unplanned but largely unplanned





Traffic congestion

- Planned for population of 0.5 million city has already achieved population figure of 0.75 million
- Nearly 1 million people live in planned/unplanned settlements near Chandigarh--Mohali, Panchkula, Zirakpur etc. Largely dependent on Chandigarh infrastructure , housing, education, healthcare etc.
- Large scale commuting between three cities Chandigarh, Mohali, Panchkula.
- City has 0.7 million vehicles for population of 1 million having highest density in the country with 2 vehicles for every 3 person.
- In the absence of means of effective mass transportation (except buses) the problem of vehicle movement increasing manifold.
- Lack of parking spaces within houses and commercial areas resulted in entire ground spaces/roads converted into parking.
- Static road capacity resulted in numerous traffic problems.



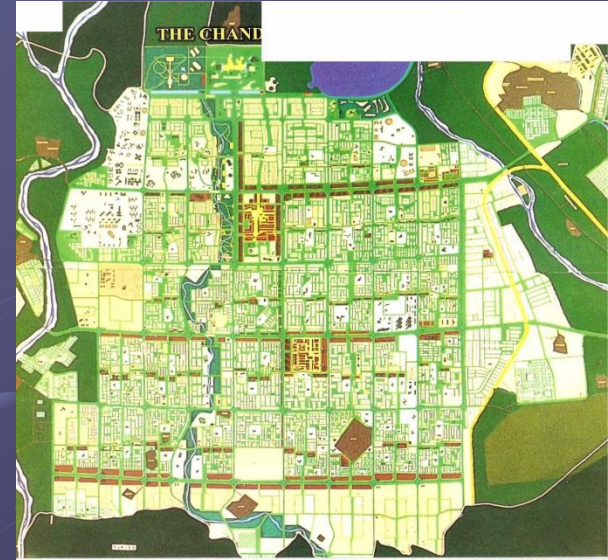
Traffic congestion

- Roundabouts in certain cases have emerged major bottleneck.
- City requires effective mass transportation system involving all major urban centres.
- Improving connectivity between different urban centres would help in rationalising traffic.
- Shifting of offices of states of Punjab/ Haryana to Mohali/ Panchkula would reduce pressure on Chandigarh.
- Need to create multi-level or underground parking in major commercial areas.
- Segregation of inter/intra city traffic critical to achieve smooth flow of traffic.



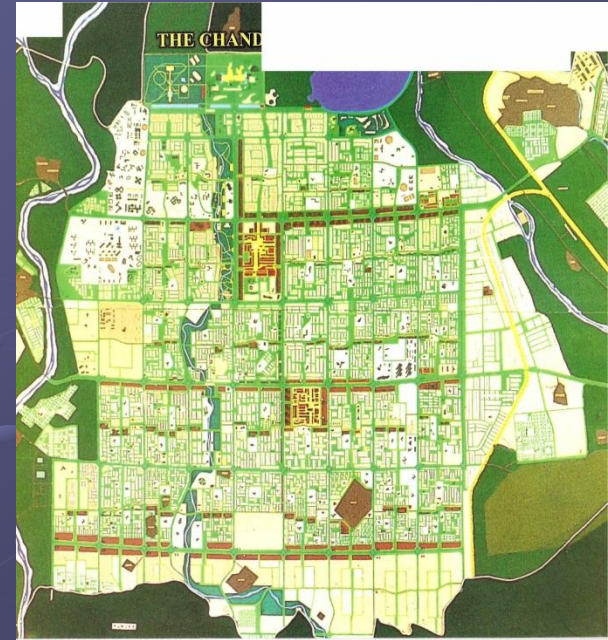
URBAN VILLAGES

- All 23 villages in phase 1 sectors removed-population shifted to other areas.
- 4 villages- retained in southern sectors in Phase 2- contrary to developmental philosophy of city.
- With agriculture land acquired, inhabitants moved away/speculators entered villages
- with no development control , villages became hub of land speculation.
- villages witnessing high growth rate – population/construction- unauthorised
- construction largely haphazard and unplanned.
- Lot of commercial activities shifted to villages-- due to low land prices and absence of development controls.
- - Now all 22 villages have been merged -- made part of municipal corporation

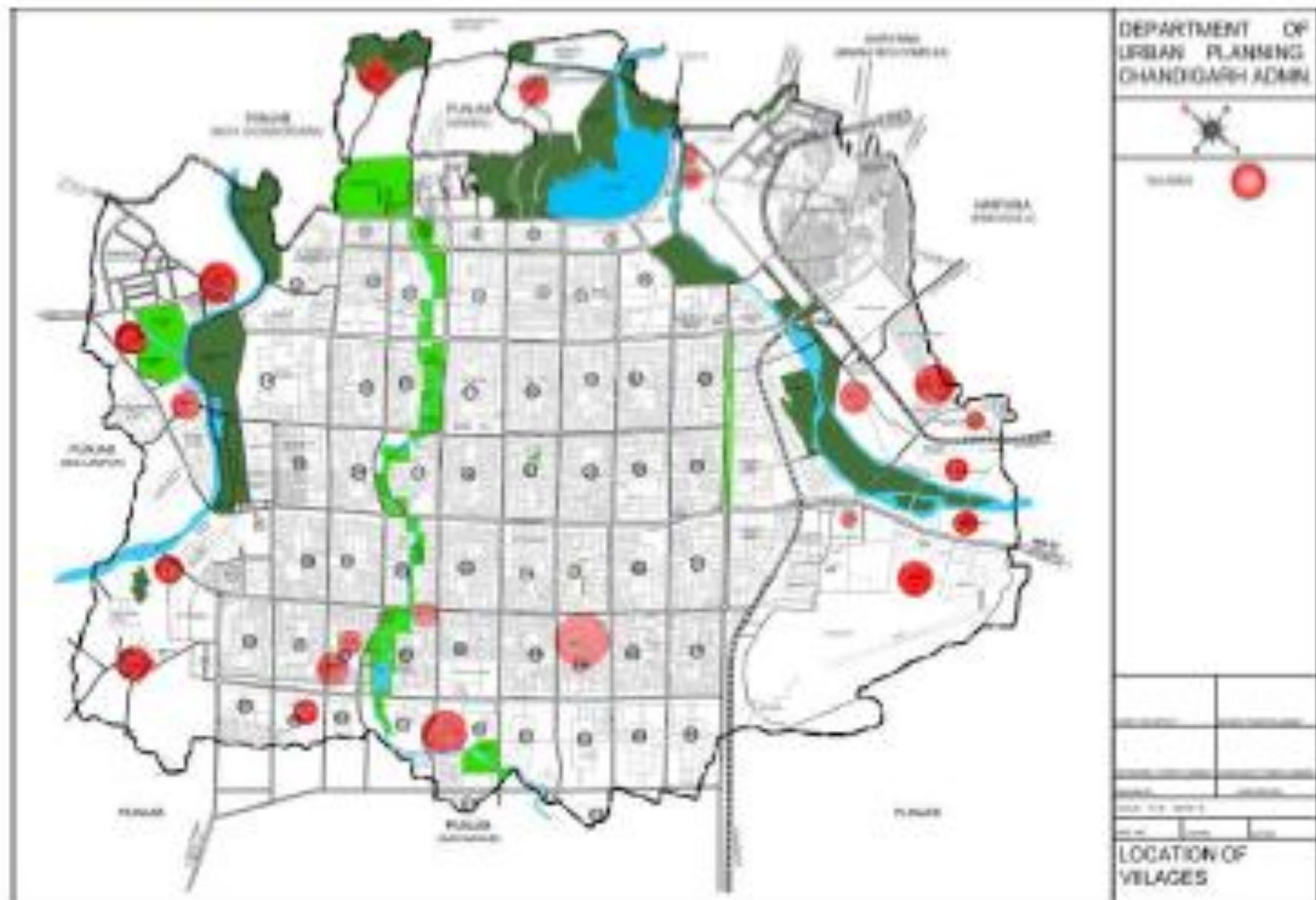


URBAN VILLAGES

- Urban villages emerged Islands of illegal and unauthorised construction with large population living without any supporting infrastructure,
- For supporting infrastructure Villagers depend on city/adjoining sectors- adversely impacting quality of life.
- Urban villages pose single most potent threat to the city beautiful.
- Urban Village development requires strict regulation/management for saving southern Chandigarh.
- Development controls needs to be framed immediately and implemented strictly.
- All unauthorized construction/ development / encroachments in villages would require removal.
- Urban village needs:
 - to be planned and
 - integrated with the sector planning
 - right at inception Of planning of sectors.



MAP M1: VILLAGES WITHIN THE MASTER PLAN AREA



Village Burail- Sector 45, Chandigarh





Changing Character of the city

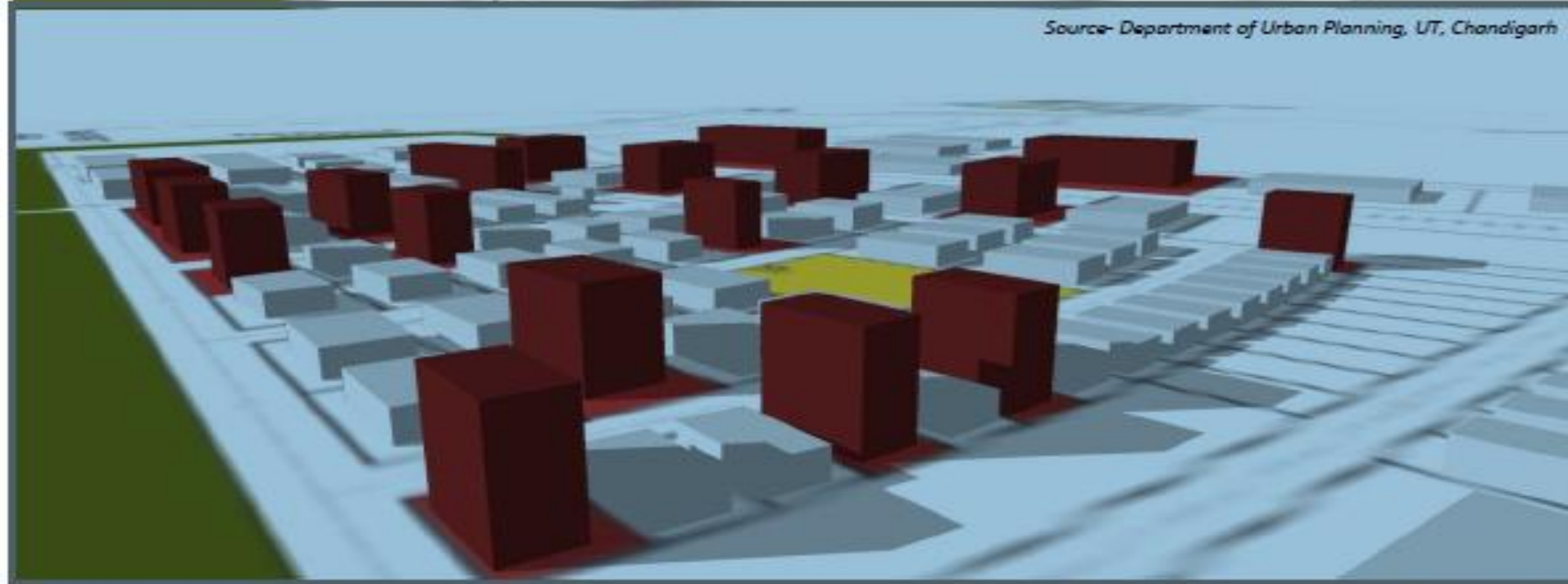
- City made numerous changes in bye-laws to accommodate commercial interests allowing more coverage.
- Allotted land on concessional rates to IT companies.
- Allowed change of land use from industrial to commercial in industrial area.
- Allowed all cinemas to convert into multiplexes with much higher FAR and commercial component.
- City attracting large FDI with many MNC/ IT majors locating their offices
- City fast emerging as the commercial hub against administrative Centre
- City growth accelerated in the recent part.
- Land prices have gone very high.
- More job opportunities attracting large number of migrants.
- Mushrooming of slums/unplanned development.
- Unauthorised additions/alterations in building taking place at rapid pace.
- present policies need critical review to save cities from being exploited commercially.



VIEW SHOWING INDUSTRIAL AREA PHASE – I WITHOUT CONVERSION OF PLOTS



Source- Department of Urban Planning, UT, Chandigarh

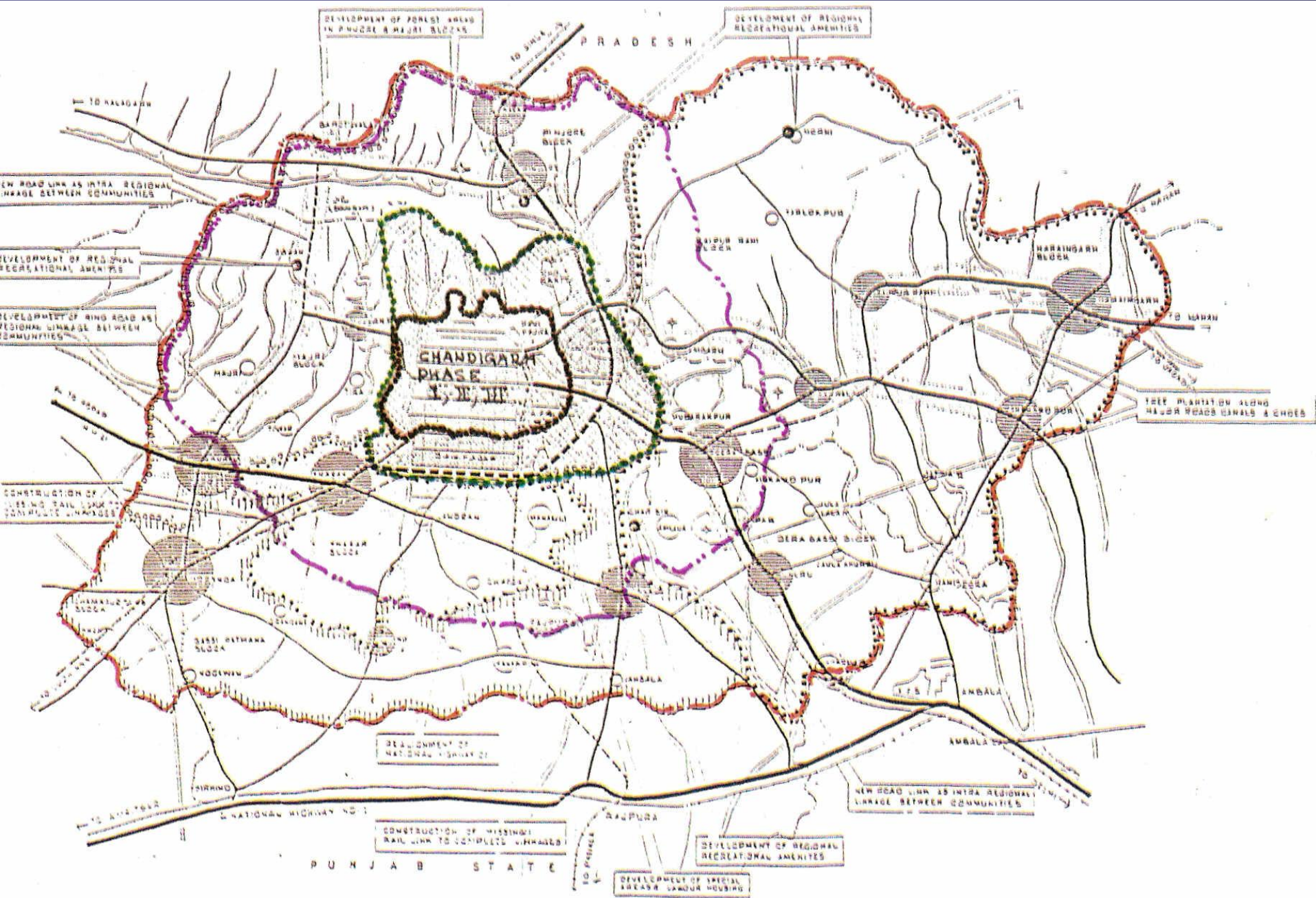


Source- Department of Urban Planning, UT, Chandigarh

VIEW SHOWING INDUSTRIAL AREA PHASE – I WITH CONVERSION OF PLOTS



INTER STATE CHANDIGARH REGION STRUCTURE PLAN 2001



Rock Garden





CHANDIGARH- Message

- Despite the fact Chandigarh remains a designed city & not a planned city & City framework prepared in 96 hours--
- Chandigarh established- Cities could be developed without master plan; with a will, commitment and dedication
- - Zoning Plan alone could leverage Planned development
- - Cities can be planned /developed for making available
 - basic necessities -water, --drainage/ electricity to even “poorest of the poor” of citizens
 - Cities can Serve-- as a role model of planning and architecture
 - Cities can --set minimum standard for EWS Housing- minimum two rooms
 - - Cities can establish effectiveness/ efficacy of—shape/size of city – for promoting Simplicity, cost-effectiveness in urban planning
 - Neighbourhood Planning – sector-good for decentralization
 - manmade water body---using low lying area- remain valuable for any city/area

LESSONS FROM CHANDIGARH

- Appropriate site, quality of initial planning team for designing- constructing / managing city, Political support- most vital for success of project
- Bulk Acquisition of land- best option for rational planning/ designing/making provision of basic infrastructure/service
- No Cities exist in isolation – viewed in Regional context
- Planning with nature- best option to design a sustainable city
- Preserving existing flora/fauna, bio- diversity vital for creating a sustainable city
- Designing buildings with climate ,culture , orientation, vital to make buildings sustainable- – Sun , Space , Greenery
- Bureaucratic model of city management remains relevant to good governance
- Placing Statues in public place can be managed effectively.
- -Traffic round -about create a unique landscape area

LESSONS FROM CHANDIGARH

- *Making Landscaping integral part of city planning /development process adds value to city*
- Using local material in natural form- offer best option for creating sustainable buildings
- Concept of Development Control- could be used for promoting architectural vocabulary of city
- Concept of City &Periphery - Regional Planning- best option for regulating peri-urban development
- Every city must have an *Edict- defining basic framework- future options to preserve city by people/communities*
- *Role of profession of Planning/Architecture remains valuable in promoting planned development*
- *Planned development remains best option for promoting quality of life, creating services/infrastructure*
- *Good urbanism makes good money.*



Chandigarh Master Plan-2031



CHANDIGARH ADMINISTRATION

*"The Open-Hand
to receive
and to give
at the moment where the modern world
is bursting into
infinite, unlimited richness
intellectual
and
material."*

